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## Original Communications.

### CLEFT PALATE.

EXTRACT FROM A CLINICAL LECTURE DELIVERED AT  
THE MASSACHUSETTS MEDICAL COLLEGE, HARVARD  
UNIVERSITY, DEC. 21, 1863.

By HENRY J. BIGELOW, M.D., Professor of Surgery.

[Reported by HENRY H. A. BEACH, M.D.]

In showing a plaster cast of a cleft palate recently operated upon, I would direct attention to a mechanical expedient for aiding union of the palate in the operation of staphylorrhaphy, first employed, so far as I know, in this case. Before doing so, it may be well briefly to review this deformity and the operation for its relief. The cleft may be median or lateral. It is either a continuation of a hare-lip, or exists independently. In the latter case it may involve both the hard and soft palate; or only the soft palate may be affected—and in cases very favorable for operation, to an inconsiderable degree. The result of this deformity is chiefly noticed in the nasal intonation of the voice, to correct which various expedients have been proposed. The name of the late Dr. J. Mason Warren is associated in this community with many of our earlier operations, and I think that to him is fairly due the original suggestion of freely liberating the soft palate by dissecting it from its upper attachments, before drawing together the margins thus liberated. This is perhaps the great improvement of the modern operation.

I am not aware that Dr. Warren described the anatomy of the parts thus detached. This was afterwards done by Mr., now Sir Wm. Fergusson, who, examining the cleft palate of a dead child, showed that this malformation involved a contraction of the levator palati, and sometimes other muscles. I do not know that this distinguished surgeon detached the flaps in a way which practically differed from that repeatedly accomplished by Dr. Warren, but having described anatomically the parts thus dissected, his name is associated with this feature of the modern

operation. The late Dr. Warren was impressed with the belief that a large majority if not all the subjects of this operation were materially improved, if not cured, of their nasal voice. A case of my own, fifteen or more years ago, led me to scrutinize this point more narrowly, and I was led to the conviction that although a patient occasionally shows a remarkable improvement in speech, the rule is the other way. Neither can improvement be always expected at once, but only after a lapse of sufficient time to allow the parts to become flexible. The case I have just alluded to was that of a young lady, in whom the nasal intonation was very marked, and in whom the only apparent deformity of the palate was a partial cleft of the uvula alone. The palate was ample, and to appearance well under muscular control, and yet this congenital deformity of a bifid uvula was associated with some imperfection in the mechanism of articulation, which months of efforts on her part, even after the fissure was closed by the operation, failed to overcome. This case established the fact that something is wanting for perfect articulation beyond a palate of normal size and appearance; and that although the lateral flaps of a cleft in the soft palate may be attached to each other, often with a result beautiful in appearance, it does not therefore follow that the nervous and muscular action will be perfectly restored. In the case of a wide fissure extending well forward through the bone, the parts are actually insufficient to restore the palate, and then the usual result of the common operation is a band of greater or less width tightly stretched by cicatricial contraction across the palate, bounded behind by a naso-pharyngeal chasm which it is insufficient to close, and in front by a fissure in the bone which still remains. It is difficult to say that the phonation of such patients is not improved a little; they are, indeed, generally inclined to flatter themselves with this belief after an obturator has been adjusted to the bony opening. A patient with palatine fissure, in articulating the words *bad man*, says *man man*, vainly try-

[WHOLE No. 2136.]

ing by facial distortion to occlude the anterior nares; while a patient with nares occluded by a tumor, or a cold in the head, says *bad bad*, or *beautiful bood*, as in the familiar poetry of *Punch*. Between the nasals *m*, *n*, and *ng*, on the one hand, and the labials *p*, *b*, the linguals *l*, *d*, and the gutturals (improperly so called) *k* and *g* hard, made with the the occluded nares, on the other hand, there is a wide difference; and perfect articulation requires the machinery for enunciating, at will, both sets of consonants. This the healthy palate supplies in opening and hermetically closing the posterior nares. Yet there are persons with sound palates who habitually talk through the nose, as the conventional Yankee is said to do. Such persons do not make efficient use of their levator palati and superior constrictor of the pharynx. While we may hope to approximate our patients to the normal condition of such persons, it should be remembered that a very small communication with the nasal fossæ may materially modify the intonation. The nasal quack of the duck, for example, is produced by the reverberation of a comparatively small elastic cavity; and a hole in the human palate a quarter of an inch or even less in diameter, may produce the same result. It cannot be denied, however, that a very marked improvement now and then results from this operation, especially in a favorable case; and in view of this possibility it is certain that patients will continue to demand it at the hands of the surgeon.

The expedient to facilitate union, before alluded to, consists in the employment of a temporary artificial palate, in this instance of hard rubber, to protect the parts during cicatrization. Its use was suggested to me by Dr. Beach as a means of shielding the tongue from metallic sutures, and thereby enabling the surgeon to employ them conveniently during this operation. It also occurred to me that this arrangement would protect the palate from the peristaltic action of the tongue in swallowing, and other involuntary movements which endanger union. It is pretty well established that the success of the modern operation for vesico-vaginal fistula mainly depends upon the use of metallic sutures planted close together, so as to insure close contact of the wound, with an irritation so inconsiderable that they can be left in place from one to two weeks. Similar advantage ought to accrue from their use in the palate. The hard rubber palate here shown was made by Dr. Sheppard, Adjunct Professor in the

Dental School of this University, and fitted so as to cover the whole region occupied by the palate after the operation. It conforms with the arch of the normal palate, leaving an interval of about a quarter of an inch between it and the mucous membrane. Behind, it bends down just far enough not to incommode the tongue, while in front it was in this case keyed in the interstice of the incisors left by the former hare-lip, and laterally attached by a string to a tooth on each side. The whole is made as accurately as if it were a plate for false teeth. A hole near the front admits the nose of a small syringe, by which the interval between the plate and palate was syringed with warm water twice daily. In this case, I cannot doubt that this contrivance was of service. The fissure was wide, reaching forward to the incisors. The flaps were detached well forward from the bone, and seven fine silver stitches were inserted. The plate was not removed for the examination of the parts until the eighth day, when every stitch was found in place and was removed, the union being perfect. During the succeeding week the contracting cicatrices at the margin of the wide fissure of the bony palate drew apart a quarter of an inch of the anterior extremity of the wound, which is less than usual in these cases. The width of the remaining band was about one inch and a quarter, which, considering the size of the palate, is more than we could have expected. I cannot but think that whatever be the operation upon the palate, a more perfect union will be secured by silver sutures thus protected than by the ordinary method.

It remains to notice some of the expedients which have been of late years adopted in connection with this operation. One of the most valuable of these is the so-called "gag" of Mr. T. Smith, of London, a steel instrument by which the jaws are admirably kept open, and the tongue at the same time depressed, so that the parts are fully exposed, and the operation can be performed with great facility under ether, even in young subjects. This one, imported by Dr. Hodges, has been fully tested in the operations of staphylorrhaphy, excision of tonsils, &c., with ether, during the past few months at the Massachusetts General Hospital, and the operation above alluded to was done with its assistance.

Much attention has been directed to the different methods of closing the openings behind and in front of the transverse band of varying width which results from the union of the soft palate in large fissures. This

has been usually effected with an obturator. I have not met with as good results as many writers claim to have obtained, by an operation which consists in simply detaching the soft tissue from the bony margins of the anterior fissure. Of this tissue Langenbeck says that it is "more fragile and more adherent to the periosteum as we approach the gums; in fact, you can only borrow auto-plastic flaps with a chance of success from the posterior part of the mucous membrane, the thickest and least adherent, especially that which covers the horizontal plates of the palatine bones." But there can be little doubt that by detaching this flap we secure a union of the soft palate to a point a little further forward than might otherwise be possible, and so facilitate the subsequent use of an obturator. A later operation, usually attributed to Langenbeck, is said to be much more effectual in closing the anterior fissure. It consists in denuding the whole horizontal bony palate, and uniting the soft tissue thus detached upon the median line. A good idea of this operation may be obtained by supposing two large lateral flaps to be thus formed, from the whole soft and hard palate combined. The tissue is best detached from the bony palate by square or spade-pointed blades inclined to their handles, by which the tough tissue is cleanly dug or hoed from the bone. After starting it, blunt instruments work best. Such flaps are still insufficient, anteriorly, and a lateral incision is therefore made on each side, close to the alveolar processes from the second incisor nearly to the last molar. These incisions stop in front, at the incisors, and behind near the hamular processes, in both cases before reaching the bony canals of the arteries. Thus the arterioles of the flaps are preserved, before and behind, and the flaps are wholly detached from the horizontal bone, except at these three points; the anterior attachment being a pedicle. These incisions are usually made first, and the process of detaching the soft parts is there begun and continued inward toward the median line. When the fissure is wide, and one or both sides of the bony palate vertical, the lateral incisions may not be needed. The anterior fissure thus occluded by obturator or membrane, can have no immediate influence in bad cases upon the pharyngeal opening; although it is quite probable that after a lapse of time the flexible membrane will insure a more flexible soft palate and a better phonation than an unyielding obturator.

M. Passavant, of Frankfort, in a paper

on the means of obviating the nasal intonation in congenital fissures of the bony and membranous palate, &c. (*Arch. Gén. de Méd.*, 1865), after alluding to the inefficiency of present operations to attain this result in a majority of cases, cites a case of much improvement after an operation in which the posterior border of the soft palate was attached to the pharynx behind it, the surfaces being first denuded and then placed firmly in contact by means of sutures. This result, however, was only attained at the expense of a transverse incision of the soft palate, by the gaping of which the palate was brought into contact with the pharynx. I ought here to add that, within a few months, I have attempted this operation in one instance without liberating the soft palate by a transverse incision, and that in this instance the pharyngeal border failed to unite. But it seems not improbable that these and other comparatively recent investigations will lead to some operation to be performed under ether (with the invaluable aid of the dilator above mentioned), which may so far occlude the nasal cavity or shut it off from that of the mouth by a flexible septum, as to insure in bad cases an improvement of the voice, which now only occasionally results from the operation in such cases. It is probable that the hard and soft rubber palate, alleged to afford relief in these cases without operation, would be even more efficient as the results of surgical interference become more complete.

It remains only to describe the common operation. If ether is not to be used, the patient should educate the soft palate to insensibility for a few days by frequently tickling it with a feather. The best way to hold the soft palate for dissection is with double hooks terminating in firm single points, meeting and crossing a little. A single puncture is thus made. Forceps slip, tear and bruise the parts: I divide the muscles until the flaps are free, with scissors doubly curved, on the edge and flat, one for each side, passing the finger occasionally behind the flap, to find what is most tense and unyielding. The edges are now to be pared; this incision bleeds less, and is therefore perhaps best done first. The whole thickness of the edges of the palate should be denuded, and if there be doubt upon this point, owing to the discoloration of the parts, the detached sliver may be floated in water to see if it is of uniform width. Further dissection may be made before or behind at discretion, and the parts brought together by common

small curved needles threaded with silk or wire; then each suture, to facilitate finding it again, has its ends united, and each is drawn in succession through the fissures of a plate of cork, cut like a comb and held on the forehead of the patient. The best needle-holder should have jaws not a quarter of an inch wide, that they may not straighten a curved needle, and not extending half an inch beyond the pivot, that the long handles may secure a firm grip of the needle. The best needles are the smaller sizes of glovers' needle, curved with different bends, the temper being then partially restored and their convex surface flattened by grinding or honing, to prevent them from turning in the forceps. The silk sutures are now tied with common knots; or the wires with a half knot and then a twist, and are to be left in place until union, or as long as they are of any service.

#### AN IMPROVED FRACTURE BED.

By ALBERT SMITH, M.D., Peterborough, N. H.

THE following suggestions, which are only the application of a well-known principle, seem to me to embody an important improvement in the treatment of fractures of the lower limbs, or indeed of any bed-cases. The apparatus is so cheap and easy of construction, as to be within the means of any one; and may be improvised at once, under almost any circumstances in which a patient may be placed. I herewith send you the plan proposed and the mode of using it.

I was called in consultation with Dr. W. D. Chase, of this town, to Mr. Miles Robinson, of Bennington, who had fractured his thigh near the trochanter major, by a fall from his haymow. After the bed had been prepared and the fracture adjusted, and extension applied by a weight over a pulley, I suggested that an apparatus should be constructed for the purpose of raising him from the bed, without injury to the fracture. Those who have the means can procure appliances of this kind, such as Dr. Josiah Crosby's fracture bed, or Dr. W. D. Buck's modification, or others; but the patient was poor, and must have gone without them, unless some cheaper arrangement could have been suggested.

We adopted the following plan:—We directed a frame to be made of the length of the bed and about three feet wide, composed of four pieces of plank, say 3x2 inches in thickness, if of soft wood, secured at the corners, by a mortise or a bolt. Across this frame, from one side to the other, bands of

some strong material, which might be webbing, or bed-ticking, or any other strong cloth, about six inches wide, were carried under the body of the patient, but over the sheet on which he lay, and were fastened securely to the frame on each side, the bands being arranged about six or eight inches apart. This apparatus might remain in its place without any inconvenience, when not used. In order to raise it with the patient on it, a staple was driven into the ceiling over the centre of the bed; a small tackle was hooked upon the staple, and a cord from each corner of the frame was attached to the lower block of the tackle. Assisted by the rope of this tackle the patient can now, with little effort, raise himself as often as may be necessary or desirable.

In this case, the patient had been suffering for years with a painful sciatica of the thigh that was broken, and seemed a most unpromising subject for such a grave injury. But with this apparatus, he is quite free from pain, and seems to be doing as well as any one could at his age (66), it being now nearly four weeks since the accident occurred. In the meanwhile, extension has been kept up without any inconvenience or pain, and there is every prospect of a useful limb, with very little shortening.

This is the second case in which I have used this apparatus with complete success. In the former case, a compound fracture of the tibia, with extensive lacerations of the soft parts, the patient had lain more than forty days on his back, with much suffering and uneasiness. The application of this apparatus surprised and delighted him with the great comfort it afforded, and the ease with which it was used. It was a complete relief to his restlessness; it quieted and soothed him, it gave an opportunity to ventilate and make up his bed as often as desired, it answered all purposes of defecation, and prevented anything like bed-sores, so likely to occur when a patient is long confined to one position.

This may seem a small improvement to suggest to the profession, but it is by such as these that the way is opened to greater and more valuable discoveries. My experience with the mode here suggested has been so successful, that I could not withhold it, however trifling its importance may seem. I hope it will be tried, since the apparatus can be made at so little expense, can be improvised at once, under any circumstances, and is as useful and comfortable as a more expensive apparatus.



## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

OCT. 26th.—*Typhoid Fever in Limited Localities.*—Dr. COTTING reported an instance. In Kearsarge avenue is a block of three houses, built of brick six years ago. In the middle house the father was taken sick, and in the course of two weeks four children, who all had typhoid fever and were very sick; in the upper house the fever attacked two adults, and in the lower house four adults, of whom two, a mother and daughter, died; there was one case in each of two houses behind these; all recovered but the two above mentioned. Dr. Cotting had visited in one of these houses during the past ten days, and had found it for ventilation and cleanliness as good as any house could be. After the sickness began, the vault of one of the houses was found to be obstructed, was opened and emptied, but still the disease went on. He could give no explanation of the origin of the attacks, but demurred against the sensational stories promulgated in the community and by the press.

Dr. George Derby thought we were not justified in the conclusion that no local cause existed, because none was found at the first search. In numerous instances an obstructed drain, or a leaky vault, or cesspool, or an accumulation of foul material, which had previously escaped notice, have been revealed by a thorough tearing up of the underground premises. In England such local outbreaks of fever were investigated under Government authority by medical officers. What they have found is reported in the volumes annually published for public information by the medical officers of the Privy Council. The connection between putrifying organic material conveyed to the system by air and water, and fever, seems to be clearly made out. The same connection has been very often traced in this vicinity, as at the Maplewood Institute in Pittsfield, the Clifton House on the Marblehead shore, and in many other instances.

Dr. Derby had witnessed an outbreak of typhoid fever of a very striking character during the war. Military necessity required that one of our regiments, 850 strong, should occupy ground that had been held for several months by the enemy, and which was filled with excrement, and the waste of the camp. Water was drawn from shallow

wells sunk in the midst of this pollution. Three hundred cases of typhoid and twenty-two deaths occurred in this regiment. When they moved to a fresh camp the disease disappeared.

Such evidence seems as positive as that connecting any disease with its cause; syphilis and small pox with contagion, scurvy with the absence of fresh provisions; more positive than that connecting rheumatism with exposure to cold and wet. Neither of these causes always produces the associated disease.

Dr. DERBY thought the popular impression that filth produced fever should be encouraged by our profession.

Dr. READ said a similar series of cases occurred in Lynn some years ago, and it was found that a vault emptied itself into the waters of a well constantly in use for domestic purposes; this was put in order, and the fever ceased.

Dr. CORRING had been able at one time, standing at his own door, to see houses in which eleven cases of typhoid fever existed, counting two in his own house; their origin could not be satisfactorily explained. Once six or seven cases occurred in a light-house dwelling, far from any other residence, having no obstructed drainage, and of course having plenty of good fresh air.

Dr. REXFOLDS said that though these drains were examined, sufficient care might not have been employed, as they frequently proved to be out of order when supposed to be all right.

Dr. JACKSON confirmed what had been remarked by Dr. Cotting.

Dr. WARE thought it a mistake to call the evidence positive when we do not know that the supposed cause produces the disease. In the present state of our knowledge of the nature of typhoid, it is mere coincidence. We know that the same conditions of drainage do not always produce typhoid. And we know that typhoid occurs when there is no such cause to produce it. It is quite as likely that it is something else less conspicuous, and of which we are at present ignorant, which occasions these groups of typhoid within a limited area when there is not much of it in the neighborhood. Dr. Ware had met with three instances of isolated groups of typhoid, one where there were five cases in one house, another in which there were seven cases in one house, another in which there were eighteen cases in a block of two houses. In each instance typhoid was not prevalent in the neighborhood. In neither instance was there any defective drainage, nor nuisance

of any kind about the premises or neighborhood.

The numbers in each of these groups are sufficiently large to make it probable that there was a special cause for their occurrence. But they also show that it is a hasty thing to conclude, that when there happens to be the coincidence of defective drainage, that that is the cause.

Dr. COTTING thought there was something belonging to typhoid fever essential to an attack or spread of the disease, besides emanations from drains, filth, &c. The disease broke out again at Maplewood, a year or so after the cleansing. At Andersonville, filthy enough, certainly, there was none of it, and when brought there it did not spread.

A typhoid fever recently prevailed in Bootle, a suburb of Liverpool, and according to reports seized upon those dwelling in self-contained, airy, and well drained houses, in larger proportion than in others. The usual complaints against water-supply, drainage, filth, &c., were made, but were found to have little or no foundation. "That it had its origin in some more general cause seems proved," says a reporter, "by the wideness of its spread, for not only were Bootle, Waterloo, and Seaford affected, but a fever of the same type prevails largely in Liverpool just now."

Dr. HODGES suggested that as there was probably blood poisoning in this disease, the poison might exist in the atmosphere and be transferred from house to house or person to person, as has been thought to be the case in erysipelas, septicæmia, and pyæmia.

Dr. OLIVER said that during the late war a cavalry regiment encamped on ground near Alexandria, which became gradually saturated with urine, &c., the horses standing up to their ancles in filth; typhoid fever broke out in this regiment, and in no other one of the division. The cases were very numerous, and many of them were fatal. This was the only cavalry regiment in the division, and it was encamped in the immediate vicinity of the infantry regiments and of the batteries of artillery, but on lower ground, where drainage was necessarily bad. Thorough search, by an official, failed to detect any other cause for the outbreak of fever than this accumulation of filth.

Dr. LYMAN said that during the war of the rebellion there were many instances of this kind, but it only proves that low fever will follow the re-occupation of old camping-grounds, which retain the filth, &c., resulting from their former use. A notable in-

stance of this kind was observed at Columbus, Ky., which had been occupied by a confederate army during the year preceding its occupation by the Federal forces.

Nov. 9th. — *Local Origin of Typhoid Fever.* — Dr. MINOT said that he was called in September to a gentleman in Watertown, who was ill with typhoid fever. The patient was convalescent towards the end of October, and was able to come to town for the first time, October 29th. Some days previous to that date, a foul smell was perceived about the house, and the drain was taken up and examined, but nothing wrong was discovered. On the 31st of October, a little boy eight years old, having been complaining for a few days, was taken sick with what proved to be typhoid fever. November 2d, a girl, nine years old, and November 4th, another girl, twelve years old, were taken ill with the same symptoms. A careful search was now made as to the condition of the drain, and it was found that an opening existed between it and an air box which conveyed air from without to a chamber behind the kitchen range and thence to the bath room, so that the foul air had free access to the bath room, and thence to other parts of the house. Nov. 6th, the wife of the gentleman first taken ill, after suffering for a week with headache, went to bed with symptoms of typhoid fever. As some smell was still perceived about the premises, a new search was made, and another opening in the drain was discovered, beneath the wash-room floor. The workman who took up the floor was so much overpowered by the effluvia that he had to be assisted to the outer air.

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NORFOLK DISTRICT MEDICAL SOCIETY OF MASSACHUSETTS. WM. H. CAMPBELL, M.D., OF ROXBURY, ASSISTANT SECRETARY.

A regular quarterly meeting of the Norfolk District Medical Society, was held at the Phoenix House, Dedham, January 13th, 1869, at 11, A.M.; the president, Dr. Cotting, in the chair.

The records of the preceding meeting were read by the secretary, Dr. Jarvis, and accepted.

Dr. Stone, Jr., of Walpole, related five cases of malignant pustule, in addition to those he had previously reported (Boston Medical and Surgical Journal, Feb. 13th, 1868, p. 19).

There have been in all sixteen cases of this disease in Dr. Stone's neighborhood, of which nine were fatal. All these cases oc-

curred in persons working in, or in some way connected with, a hair-factory in the vicinity.

In some of the cases bacterids were found in the vesicles; in one case, in the blood also.

Dr. Stone thought there could be no doubt that the disease owed its origin to a specific poison. The general symptoms were those of a low form of typhus. He said that the patients derived most relief from hypodermic injections of morphine, administered not so much to allay pain as to quiet gastric disturbances, which were very distressing. (Paper on file for publication.)

Dr. Alden, of Randolph, gave an abstract of a paper on the temperature of sick rooms. To the majority of patients a temperature of 62° to 68° Fahr. will be found most acceptable; but the aged, or the very young, require it somewhat higher. This should be regulated by a thermometer, and not left to the sensations of the nurse or attendants. An open fireplace, with wood fire, secured the best ventilation; but the sheet-iron airtight stove, burning wood, would heat a room more effectively in very cold weather; and was preferable to coal stoves, or even the hot-air furnace. There should, however, be an opening in the chimney near the floor. One in the flue, near the top of the room, guarded by a self-regulating valve, opening to an upward current and closing to a descending one (as used in many London houses), might also be very useful.

A great desideratum would be attained if the experiments proved successful which were understood to be now making—having for their object the construction of a hot-air furnace, whose chamber should be heated by steam-pipes, so that nothing but fresh air could enter or pass through it, the heating apparatus being outside, and kept uniform by a thimble-feeder, and the whole at a reasonable cost.

After the remarks elicited by these two papers the Society, by vote, took up the subject assigned for discussion at this meeting, viz.: "*Precautions obligatory, in the present state of knowledge, to be urged upon members of households attacked with scarlet fever—as regards the family and neighbors, and also attendance at school of the healthy children of such families.*"

Dr. Faulkner, of Jamaica Plain, after some remarks on the uselessness of belladonna as a prophylactic, though still mentioned in the text-books, spoke of the uncertainty of any attempts to prevent the access or spread of scarlet fever. He had seen it appear in a family, without known origin, and take

one only out of six children. In some instances it did not spread when no measures were taken to prevent spreading.

Dr. Martin, of Roxbury, believed that there was no proof that the disease had ever been carried in the clothing of physicians or others visiting the sick, though he was not prepared to say that children should indiscriminately go to school from houses where the disease existed. He was quite certain that convalescent patients should not be permitted to go about as soon as generally allowed, as they were capable of communicating the disease while any desquamation was going on. He once suspected a case to have been induced by a blanket taken from a trunk where it had been deposited from a patient fifteen months previously, but he could hardly believe in such a conveyance.

Dr. Edson, of Roxbury, said that he believed physicians might be the means of communicating scarlet fever, and cited two cases, one in his own family, where he himself had apparently carried the disease. He acknowledged that such cases did not afford absolute proof, as some other mode of access was possible, nevertheless the presumptive evidence was strong.

Dr. Burgess, of Dedham, would not keep children from school, and did not believe in such easy communicability of scarlet fever.

Dr. Stedman, of Jamaica Plain, usually advised children to be kept at home in such cases, though he thought there was little or no danger in their going to school. We must, he said, respect, in some degree, the prejudices of the community.

Dr. Alden, of Randolph, thought it was prudent to keep such children at home for their own sakes. As to communicability, that possibly depended on the severity of the disease or epidemic influences.

Dr. Arnold, of Roxbury, after referring to the various ways of communicating the disease, said that it was very certainly contagious, but the laws of its contagion were not yet thoroughly understood. He was quite sure that he had traced it to clothing. He would not allow well children to go to school from houses infected with this disease; and the sick at home should be isolated.

Dr. Salisbury, of Brookline, thought that the disease often appeared to be carried by well persons, when in reality such persons had sore-throat, and were, in fact, passing through a form of the disease. This form of the disease may occur in those who have had scarlet fever previously.

Dr. Jarvis, of Dorchester, said it was best

to err on the safer side, and to keep the well children at home when the disease was in the house. However, he never knew of an instance of the disease being carried in such a manner.

Dr. Stone, Sen., of Walpole, believed that scarlet fever never arose spontaneously; it was always communicated, and was contagious while desquamation lasted. He confirmed Dr. Salisbury's statement, and related several cases in which the disease seemed to be carried in clothing, but in reality arose from the supposed carrier being affected with sore throat. This sore throat in those protected by previously passing through the disease on being subsequently exposed, was analogous to varioloid after smallpox or vaccination; and was capable of giving the disease to such as were not protected.

Dr. Jones, of Newtonville, formerly of this society, present by invitation, thought that clothing might be a means of communication if contaminated with any of the discharges from mouth or nostrils of the patient, but not otherwise. On full recovery the child should be well cleansed and its clothing washed and aired, before being allowed to mix with others.

The time assigned for adjournment having arrived, further discussion was deferred to another occasion.

At 1½, P.M., adjourned.

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## Bibliographical Notices.

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### *"Scarlet Fever and its Prevention."*

UNDER this title "W. Budd, M.D. Ed., Honorary and Consulting Physician to the Bristol Royal Infirmary," writing on the question of how soon children at boarding schools may be removed to their homes after passing through scarlet fever, says, in the British Medical Journal, Jan. 9th, 1869: "If in fact the patient can be so treated as to cease to be an active source of infection by the time he is able to travel, the difficulty is over." One would think so, surely. "Now," he adds, "if my own experience can be trusted, nothing is easier." Q. e. d.

Then, in seven "simple precautions," in which "handkerchiefs are proscribed" but "a good supply of towels" "always at hand," chlorides are repeatedly insisted on; though some paragraphs after that he says, "experience of the largest and most decisive kind has shown that chlorine in the degree of atmospheric impregnation respir-

able by man has no appreciable influence in preventing the spread of infectious disorders." Again, having suitably deplored that others all "united in the humiliating confession that no definite time could be named in which persons who had gone through this infection could safely mix with others," he condescendingly informs the rest of mankind that:

"According to my own experience, these difficulties and perplexities may be entirely averted by the employment of the simplest precautions. To be successful, these precautions must be put in force early, and must be thoroughly carried out. The first thing to aim at is, to prevent the minute particles, which are the carriers of the poison, from taking wing until they can be disinfected *in situ*. This, I find, can be perfectly effected by simply anointing the surface of the body, scalp included, twice a day with olive oil." "The precise period at which it should be begun varies somewhat, no doubt, in different cases. As early as the fourth day of the eruption, a white efflorescence may often be observed on the skin of the neck and arms, which marks the liberation of the new death-giving brood. This efflorescence should be made the signal for the first employment of the oil. From this time the oiling is continued until the patient is well enough to take a warm bath, in which the whole person, scalp included, is well scrubbed, disinfecting soap being abundantly used during the process. These baths are repeated every other day, until four have been taken, when, as far as the skin is concerned, the disinfection may be regarded as complete." "A week or ten days additional quarantine is, however, seldom objected to; and is on the whole, perhaps, more prudent"—more prudent certainly if, as our author had previously stated, "the process of desquamation, by which this crop is finally cast loose, is a very slow one, lasting for the most part over many weeks."

From these extracts the reader will readily comprehend the scientific exactness of the whole paper. In this respect it does not differ from most of the papers and works on disinfection and "prevention."

It would be interesting to ascertain what proportion of the inhabitants of Bristol have been saved from scarlet fever during the last "twenty years" in which, "in a very wide field," Dr. Budd "has never known the disease to spread in a single instance beyond the sick room" where this method was tried. He admits, however, that there are "unhappily large masses" to whom

"it would be little short of mockery to speak of such measures as I have proposed in connection with them," and "that there are few families that have not at one time or another felt the deadly power" of the disease. Yet with great apparent complacency he avers that "if the measures here suggested were systematically and energetically put in force against this great enemy of man, the annual number of the slain would fall to a very low degree."

Are not such dicta of such stuff as dreams are made of?

The *British Medical Journal* is the accredited organ of the British Medical Association!

X. Y. Z.

*The Philadelphia System of Obstetrics, in twelve parts, fully illustrated; etc.* By Jos. S. LONGSHORE, M.D., Professor of Obstetrics and Diseases of Women and Children in the Philadelphia University of Medicine and Surgery, &c. &c. Philadelphia: University Publication Society, 1868. 8vo. Pp. 800.

Our readers have already seen a notice of a medical publication by Dr. Paine, also of "the Philadelphia University." If curious concerning it, they may refer to the *JOURNAL* for January 14th. The book before us may be said to bear a strong family likeness to that of Dr. Paine. It will be best to let it speak for itself on the subject of its own merits, with which (it is to be hoped) the author is better acquainted than is the profession at large.

In the preface Dr. Longshore says: "Our sole object has been to collect the glittering gems of truth from whatever sources we could make available, and arrange them in a casket that may remain imperishable through all coming times as the truth itself is imperishable." He next informs us that he was induced to enter upon the special study and practice of obstetrics by two cases which fell in his way. The first was one of "most terrific puerperal convulsions, which recovered under his charge after having been abandoned as hopeless by three of the most experienced and distinguished physicians of the neighborhood." The second was one of extreme menstrual derangement, in a young woman who refrained from informing her mother of her disease. "This sad mischief resulted," in his opinion, "from a misdirection of that innate modesty which is the gem of the female character!" He then speaks of the Female Medical College of Pennsylvania, of which he was one of the originat-

ors, himself occupying a professor's chair during the first three courses of "regular medical instructions;" after which his connection with the institution ceased. As to his book—"prepared by request"—it is "different from any other medical text-book extant," in the catholicity and the "broad liberality of thought it inculcates."

In a second preface the author gives a "history of obstetrics," beginning with Adam and Eve, Saturn, Uranos, Jupiter and their consorts, and closing with the University of Pennsylvania. Then comes a chapter (called a "Frontispiece") on *Woman*, which exhibits a peculiarly naïve vulgarity, almost astounding to us, and excellently well suited to the taste of those who are seeking a literary stimulus to morbid sexuality.

In the main body of the work we find a great number of remarkable facts, pervaded by a certain air of romance which inclines us to doubt for a moment the author's credibility.

We are told that the stethoscope was for some time greatly in vogue, but that it has been, to a great extent, superseded by the bare ear, except in some cases of females, where the mammae prevent the direct application of the ear, and where motives of "delicacy" suggest its use. "Aside from such considerations, it possesses no merit, that is not enjoyed by the unassisted ear."

Of the duration of pregnancy he does not treat. He contents himself with the bodily transference of an article contributed to this *Journal* about a year ago, by our own Professor of Obstetrics—an article which claims to be only a list of cases, chiefly valuable as material for the professed statistician. We hardly think their author will agree with Dr. Longshore in his remark "that they are American, which enhances their value with the American student." Science has no nationality, though quackery may have.

Of the erudition which is freely placed at the reader's disposal, we give the following specimens:

"The *os occipitis*, occipital bone, from *trior*, inion, occiput." "Cloaca (from the French *cloaque*, from *cluere*, to purge itself, from *κλυζα*, kluzā, I wash.)" "Gestation (from L. *gestatio*, G. *γῆρα*, phoga, to carry.)" "Chorion, from *χοριον*, korion, "skin," from *χορειν*, korein, "to contain." He cites Van-den-bosh, Lænnec, La Chapell, and others. But to treat briefly a disagreeable subject—The book contains

no evidence of the author's fitness for the position of Professor, even at the University of Philadelphia; its only valuable portions are the selections from other writers which he has made, or caused to be made; and wherever he makes an original observation, it is sure to display conceit based upon ignorance, impudence verging upon arrogance, or a spurious delicacy suggestive of its opposite. And he calls this thing the "Philadelphia System of Obstetrics"! D. F. L.

## Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 4, 1869.

IN becoming again connected with this JOURNAL, it is our purpose that its Editorial matter shall be, in large share, an abstract of the medical topics and transactions of the day.

We shall return to a former plan of "notices to correspondents"; i. e., mention will be made of all communications received, without allusion to the acceptance or non-acceptance of any of them. The authors of such communications as may, for any reason, be considered unsuited to the purposes of this JOURNAL may definitely ascertain the fact of their rejection by private correspondence. But, we bespeak the forbearance of writers for the delay which sometimes occurs before their articles can take their turn at the press. The publishers stand ready, however, to supply extra pages whenever the accumulation of contributed matter may render it necessary. Papers, therefore, on any and all subjects connected with medicine and surgery are earnestly solicited.

With an array of talent not surpassed, at least, in any other section of the country, the medical men of New England are remarkably shy of the types. Many are the statements, uttered at our Society meetings, which are gems of thought or observation, but which never can be got into print because their authors are too indifferent to write them off for the Secretaries. Years ago, in comparing this with some other portions of the United States, Dr.

Holmes remarked that "the leaving out is in inverse proportion to the yield." There is an abundance of scientific material amongst us. The only difficulty is in bringing it out, and thus preventing it from going to waste. We wish the ice of this Northern reserve might be broken through.

THE *Gazette Hebdomadaire de Médecine et de Chirurgie*, year before last published a statement of M. Giraldès with reference to the report of a Committee of the Boston Society for Medical Improvement, upon certain cases of death attributed (erroneously as considered by the Committee) to anæsthesia produced by sulphuric ether. That journal, we believe, has not yet acknowledged our reply of May 28th, 1868, to the comments of M. Giraldès on our *reclamation* offered December 19th, 1867.

FROM the *Dublin Quarterly Journal of Medical Sciences* (the last number which has been received here, that of November, 1868) we make the following notes. Article XIII. gives a history of *Rupture of the Urinary Bladder*. It describes a case of that lesion which ended in recovery, and in which the peritoneal sac was washed out with tepid water injected through the rent in the organ. The reporter, Dr. Thorp, states that out of upwards of fifty cases of this injury, scattered through the archives of medical societies and journals, there are but three instances of recovery recorded, previous to that related by himself; and in one of those three alleged cases there are doubts of its real nature.

*Apropos* of the remark that an unusually severe form of *paronychia* had latterly prevailed in Dublin, an excellent description of that disease is given, and is accompanied with colored illustrations of the affection.

*Tape-worms* are stated to be of rather rare occurrence in Ireland, where yet the pig is an important inmate of the cabin. *Tænia solium* and *T. mediocanellata* are met with, though the latter is comparatively seldom recognized. Dr. Frazer, however, believes that the *mediocanellata* has often been confounded with the *tænia solium*, and is far more common in the Island

than is generally supposed. He declares that the bothriocephalus is by far the rarest of these entozoa, only the fifth instance of it having been as yet reported in Ireland.

M. Demarquay is quoted as saying of *carbonic acid*, that anæsthesia of the skin, when produced by it, only occurred under the influence of a continuous jet played upon a very limited portion of the body; that introduced into the system by the respiratory organs it does not produce the poisonous effects which have been attributed to it, those effects being due to its admixture with carbonic oxide or other agents; that carbonic acid is simply irrespirable; that in man it seems impossible to produce anæsthesia by breathing it, without danger of asphyxia.

As Nice is one of the fashionable resorts for consumptives, it is worth while to be informed that its climate and peculiarities as a health resort have been done into a *brochure* of 37 pages by Dr. Hughes, Prof. of Surgery in the Royal College of Surgeons of Ireland. Dr. Hughes says that the climate of Nice, which is of a stimulating character, is very beneficial in certain forms of phthisis, in chronic bronchitis, atonic dyspepsia, albuminuria, and "many allied forms of disease;" but that it is "injurious in advanced cases of phthisis (especially where there is a quick pulse, with irritative fever), in irritative dyspepsia," &c. It is asserted, also, that different districts of the town are suitable for different forms of disease, so that patients going there should be warned as to the residences they select. The pamphlet is published by Cooper, of Dublin.

By way of the *Archives Générales*, we learn that Dr. Santesson reports (in the *Journal. f. Kinderkrankheiten*, 1868) that, having injected a few drops of perchloride of iron into an *erectile tumor* in an infant, the child died with convulsion in the space of a few minutes. At the autopsy, there were found voluminous clots in the larger venous trunks, and in the right auricle and ventricle. The author thinks the injection penetrated a vein and produced the clots, and recommends that during such operations the veins connecting with the tumor be compressed.

*Cerebro-spinal Meningitis* was not extinct in Ireland in 1868. The disease, in its present or recent visitation, invaded that country in 1866. The last case we happen to have heard of there was in January, 1868.

In a December number of the London *Medical Times and Gazette*, it was stated that "Palæo-pathology" was recently introduced for the first time by Mr. Busk, at the Pathological Society, by the exhibition of a bone from a fossil rhinoceros showing traces of rheumatism; a repaired fracture in a cave bear; and a diseased pelvic bone, also of *Ursus spelæus*.

Dr. J. G. McKendrick (*Edin. Med. and Surg. Journal*, Dec., 1868) relates a case of fatal "*meningo-cerebritis*," caused probably by exposure to the sun" during the unwonted heat of which our trans-atlantic cousins complained so loudly last summer. At the autopsy, the whole of the posterior half of the left hemisphere was found to be soft and infiltrated with a purulent-looking matter, and the left lateral ventricle was filled with it. The right hemisphere was not so much congested as the left; there was no pus or broken-down substance, but the right ventricle contained dark-looking serum. There was no abscess with definite walls. The patient's speech became defective on the eleventh day of his illness; and Dr. M. draws attention to the fact that it was the *posterior* lobe of the left hemisphere which was chiefly affected, the anterior lobe being "firm and healthy looking, with the exception of the small red spots to be seen on making an incision into the cerebral substance." The reporter alludes here to M. Broca's theory of the seat of articulate language in the *left anterior lobe* of the brain.

Dr. McKendrick refers to the use of "*iodide of potassium*" in this patient, without apparent advantage. He, however, quotes the allegations of Dr. Tanner and others as to its great benefit in apparently hopeless cases of encephalitis when given in large doses—three to eight grains every four or six hours.

In the same *Journal* a case of *placenta prævia* is reported by Dr. Frazer. Hæmorrhage, which was profuse, stopped at once

upon the entire separation of the placenta after the manner of Simpson. The bleeding had been previously checked by the tampon, which was retained till labor pains came on. The child came footling, and was born dead. The mother was extremely exhausted, but recovered, though she remained anæmic in her appearance.

The *Archives Générales de Médecine* for December has an article by Dr. Galewski on *neuritis and peri-neuritis of the optic nerve, and their connection with cerebral affections*. Dr. G. says that among the cerebral affections which induce inflammation of the optic nerve, there are known to him only three kinds which have been verified by autopsies. Those are basilar meningitis, cerebral tumors and abscess of the brain. The *scleroses en plaques*, softening from embolism, locomotor ataxy, &c., on the contrary, give rise only to progressive atrophy of the optic nerve. Cerebral apoplexy sometimes disturbs vision. But this symptom so caused is exceedingly rare, and there is in company with it either congestion, or effusion, or atrophy of the papillary layer. Dr. G. was struck with the constancy with which certain symptoms attend the development of optic neuritis. Thus the abrupt invasion of amblyopia or amaurosis, mydriasis, and the coexistence of the neuritis in the two eyes, are habitual symptoms which he would almost call pathognomic of the cerebral affection. But few exceptions have been found to this rule.

To the ocular signs, Dr. G. adds certain rational symptoms, such as vomiting, constant vertigo, violent pains in the brow or occiput, epileptiform convulsions, paralysis of the seventh, fifth and eighth pairs. Paralysis of the third or sixth pair may also occur, but it is ordinarily monocular when the neuritis is due to basilar meningitis.

In the same number, Dr. Duplay gives a paper on "*congenital tumors of the sacro-coccygeal region*." In that region, he says, a certain number of congenital tumors have been found communicating directly with the rachidian canal. But they are rare. Their structure varies, though they are usually described as *cysto-sarcomata*.

Congenital tumors in the sacro-coccygeal region, having no connection with the ca-

nal, are numerous. They are most frequently situated on the anterior surface of the sacrum and coccyx, and consequently in the pelvic cavity. They are generally elongated in shape, and their size varies from that of a hen's egg to that of the head of a fetus at term and upwards. A few scarcely pass beyond the crotch; while others descend as far as the hams, or even the heels. The tumor is usually fixed to the coccyx by a more or less firm pedicle.

Dr. D. makes five classes of these tumors:—1, cysts; 2, sarcomata and cysto-sarcomata, to which he adds fibromata and cysto-fibromata; 3, lipomata; 4, *tumeurs caudales*; 5, certain tumors of very complex nature.

The children affected with these tumors are usually attenuated, but with some exceptions are well formed. They are often born before their time, and frequently also their death precedes parturition. Of 70 cases of infants born alive with these lesions, 61 died. The death generally took place a short time after birth. Authors allege some few cases of individuals living with these tumors from 20 to 55 years. But the congenital existence of the lesions in these cases is not absolutely proved. The cysto-sarcomata are the most fatal.

Results are quite in favor of operative interference. In 12 extirpations of foetal tumors (tumors involving "foetal inclusion"), there was success in eleven cases and death in one; and in that one there was complication with spina bifida. For the other congenital tumors—cysts, cysto-sarcomata, sarcomata, &c.—in the twenty extirpations performed, there were but three deaths and two doubtful terminations.

The results of other operations upon these tumors—puncture, incision, ligature—have been deplorable. Nine cases of puncture or simple incision were all fatal. One case of puncture, with iodine injection, was successful. The ligature, employed five times, gave three deaths and two "cures."

Dr. Marchand, in the *Nouveau Dictionnaire de Médecine et de Chirurgie*, has collected a sufficient number of cases of *strangulated hernia*, in which an infusion of coffee had appeared to relieve the difficulty, to induce the *London Medical Times and Ga-*



zette to recommend a further trial of the alleged remedy. A half pound of roasted and powdered Havana coffee is to be added to twelve "cupfuls" of boiling water. Of this a cup is to be taken every quarter of an hour till eight cups are taken; after this, half an hour is to elapse between the doses. *Quære.* Is it the hot water, or the coffee which does the work? Or is the apparent effect merely a coincidence?

The same Journal reviews a work by Dr. Wunderlich on the "Temperature of Healthy Man"; and an article by M. Hirtz, entitled *Chaleur dans les Malades*, in the *Nouveau Dictionnaire de Médecine*. Wunderlich says the normal temperature of the axilla may range from 97.3° to 99.5° Fahr., the mean being 98.6. "It does not follow that a normal temperature is indicative of health; but every one is in a diseased state whose temperature is above or below the normal limits." The temperature in diseases, the reviewer goes on to quote, has a definite range, whose limits cannot be exceeded, of 22° or 24° Fahr.; i. e., from 112.5° to about 89.6° Fahr. Save by exception, the morbid limits may be put at 108° and 91.4° Fahr.

It is added that influences which do not affect the temperature in health may act very decidedly in disease, and this mobility of the temperature is an indication of morbid action. Deviations in temperature may be limited to those parts of the body which are the seats of diseased action.

**THE BOSTON DISPENSARY.**—As most of our city readers are already aware, the City Government has erected a spacious structure at the corner of Hawkins and Chardon streets, for the purpose of uniting under one roof the principal charitable associations of Boston, and thereby producing a concentration of action unattainable while their various offices and depots were scattered through the city. Among others it has awarded to the Boston Dispensary three spacious rooms in the basement story fronting on Chardon street, where the managers propose to establish a branch to the Institution, with a daily medical and surgical service, as soon as the necessary arrangements can be made. A new field for charitable as well as profes-

sional effort is thus opened to the members of the medical profession, and we trust that the interests of the sick poor will not suffer through the lack of the voluntary services of a class which has ever been prominent in every scheme for the benefit of the dependent and the suffering.

DR. BUCKINGHAM has shown us some steel instruments which have been plated with *nickel*, giving them somewhat the appearance of German silver. They had lain two or three weeks in a wrapper of vulcanized rubber, and had not been in the least tarnished by the sulphur contained in the rubber. The nickel coating is done at about half the cost of silver plating, by Mr. Remington, 14 Province street, Boston.

THE *London Review* is merry over Dr. Chapman's ice-bag remedy for sea-sickness, after this wise:—

"Nor is this deeply interesting pamphlet without its points of humor. Case XIV. inevitably provokes a smile. On the 23d of May, 1864, Dr. Chapman, being in the tidal train that had left Boulogne for Paris, volunteered to apply the ice-bag to the spine of a gentleman who, having just crossed the Channel, complained of nausea. The doctor took an ice-bag out of his plaid, and placed it along the gentleman's back. The latter felt much better, and "begged to be allowed, if possible, to possess himself of the ice-bag. . . . Having obtained my assent, he promised to write to me a report of his further experience in using the bag; but up to the present time this promise remains unfulfilled." Now, even without assuming, what seems probable, that this gentleman carried off one of Dr. Chapman's ice-bags without paying for it, this is melancholy, and if the gentleman is still living, and if this should meet his eye, it is to be hoped for the credit of human nature, that he will redeem his four-year-old promise.

EXTRACT FROM "A CASE OF POPLITEAL ANEURISM RAPIDLY CURED BY MANIPULATION,\* FLEXION AND DIGITAL COMPRESSION." By GEO. C. BLACKMAN, M.D.—The manipulation of the tumor, as first proposed and

\* "The term given to this paper means a particular manipulation of an aneurism, whereby the fibrin may possibly be so displaced as either in part or in whole to block up the main artery on the distal side of the disease."—*Commencement of Mr. Ferguson's paper, 1857.*

practised by Sir. Wm. Fergusson, having been carried out, Prof. B. [Oct. 22d] flexed the leg strongly upon the thigh, and then requested Prof. Conner and Dr. S. C. Muscroft to keep up firm digital compression upon the femoral artery just below Poupert's ligament. At the end of thirty minutes only a slight thrill could be detected. The digital compression was continued for sixty-eight minutes, when the leg was secured to the thigh by a strong band of adhesive plaster, and the patient was carried to his bed. Prof. B. remarked, that in all probability the digital compression had been sufficient to secure the formation of the clot which was to fill and consolidate the tumor, but to make the matter still more certain, he would continue the flexion treatment for a short time longer.

October 23.—Patient had no sleep in consequence of the severe pain he suffered, although he took  $2\frac{1}{4}$  grains of morphia during the night. It was a noticeable fact, that immediately after the operation, the temperature of the leg and foot became greatly diminished, while the sensibility of the parts was greatly increased. For some hours the foot and leg had a mottled appearance. On the day following the operation, the adhesive plaster was removed and the limb was extended until the leg and thigh were at right angles to each other. This change of position gave the patient great relief, and was maintained by a renewal of the application of the plaster.

October 24.—Pretty comfortable this morning, although occasionally some pain is felt in the knee. Tumor decreasing in size.

October 25.—Rested well last night with  $\frac{1}{4}$  grain of morphia. No pulsation in tumor.

October 26.—Still improving; tumor much diminished in size; no pulsation whatever. Takes at night  $\frac{1}{4}$  grain of morphia.

October 30.—Discharged—cured—the tumor not being more than half of its original size.

On the seventeenth of December, this patient came from his residence in Indiana, to show me the excellent condition of his limb. He stated that for some weeks after leaving for home, he suffered much pain in his leg and foot, and that it was easily affected by the cold. Prof. Conner and Dr. Dodge carefully examined the patient with me, and we were all fully satisfied that the cure was perfect. The tumor was thought to be about one-third its original size. It was quite solid to the touch.—*Western Journal of Medicine.*

EXTRACTS FROM THE LONDON MEDICAL TIMES AND GAZETTE.—We expect to have occasion often to do as we have done to-day, viz., group together a number of quotations from the same or several numbers of this periodical. We have subscribed for its weekly issues to come by mail, and shall thus have prompt access to European medical news:—

In the number for January 2d, 1869, the editor thus describes *Professor Owen's "Conclusions" in the Science of Life.* . . .

But as he advanced in his original researches, and more especially in the task of arranging the osteological department of the Hunterian Museum, he felt himself forced to reconsider the conclusions of Cuvier, to which he had before yielded assent; and he adopted the device of an ideal archetypal vertebrate animal, in order to demonstrate the principle of unity of organization. He holds, therefore, the doctrine of unity of plan, although dominated by and associated with that of adaptation to purpose.

According to the homological doctrines of Owen, a vertebrate animal is a sum of successive segments known as vertebræ—developed under the influence of, as it were, two opposing tendencies; one being the tendency to repetition of similar parts, the other to specialization. The principle of repetition—vegetative or irrelative repetition, as Owen calls it—is characteristic of the lower forms of life, and may be exemplified by the numerous and similar many-jointed terminal divisions of the pectoral limbs of the fishes, thence called Rays; by the multiplicity of similar teeth in the lower vertebrates; and by the multiplied vertebral segments of snakes, eels, and the like. If we compare the five fingers, the teeth, and the vertebræ of man with the like parts in the lower vertebrates, we shall get an idea of specialization—of the advance from the "many and like" parts in the lower to the "few and unlike" parts in the higher, in which each finger, tooth and vertebra can be singled out by a competent anatomist, and designated by its proper name and symbol.

Seeing, then, that every vertebrate animal is formed upon one model, by the special development of segments ideally alike, it follows that animals may have answerable parts, though they have no "answerable functions" to perform; that any animal may have organs, or vestiges of organs, not because they are of (teleological) use to it, but because they belong to the general model; and that all the differences from

lowest to highest are produced by degrees of development of parts common to all. As to the cause of these differences, Owen traces the successive manifestations of vertebrate life and form, not to direct or "miraculous creation," but to a natural law, or secondary cause, "operative in the production of species in orderly succession and progression."

There is one generous and eloquent passage in which Professor Owen expresses his fullest conviction that the production of new species is governed by an intelligent and beneficent Will, which has not only predestined the conditions necessary for each, but has taken care for all as one harmonious whole. "Of all the quadrupedal servants of man, none have proved of more value to him in peace or war than the horse; none have co-operated with the advanced races more influentially in man's destined mastery over the earth and its lower denizens. In all the modifications of the old paleotherian type to this end, the horse has acquired nobler proportions and higher faculties, more strength, more speed, with amenability to bit. No one can enter the saddling-ground at Epsom before the start for 'the Derby' without feeling that the glossy-coated, proudly stepping creatures led out before him are the most perfect and beautiful of quadrupeds. "As such," says Professor Owen, "I believe the Horse to have been predestined and prepared for Man." It is significant that the horse is coeval with the same geologic formations as Man. . . . .

*Oil of Turpentine in Traumatic Erysipelas.*—Professor Lücke, of Bern, relates several cases in proof of the great utility attending the local application of oil of turpentine in traumatic erysipelas, the redness disappearing in two or three days, and the temperature falling in a remarkable manner. This effect was more rapidly produced by rubbing in the turpentine than by merely pencilling with it. The diminution of temperature was observed even in cases in which the erysipelas for a while continued to spread. No local irritation results from the application of the turpentine, the patient only complaining of a temporary feeling of burning. Dr. L.'s account is quoted from the *Berliner Klin. Wochenschr.*, Nov. 9th.

Finally, the same journal has picked up from this side of the water a New York advertisement. "If you really want a pure and unsophisticated family pill, buy Dr. Rumboldt's liver-encouraging, kidney-persuading, silent perambulator. 27 in a box. This pill is as mild as a pet lamb, and as

searching as a small-tooth comb. It don't go fooling about, but attends strictly to business, and is as certain as an alarm clock!"

Scarlatina produced 67 deaths in London during the week ending Dec. 26, and 1380 in the fourth quarter of 1868.

*TEMPERATURE IN TETANUS.*—Wunderlich reports two cases from his own clinique; one of traumatic origin, the other idiopathic. They entered the hospital on the 7th and 10th days, respectively. The temperature in the first case, for three days, ranged from 99.3° to 101.4°; no improvement of consequence occurred, and aconiti tr., in doses rising to forty drops daily, was given during twelve days following. The second case, for nine days, ranged from 98.2° to 100.9°; no special improvement; aconiti tr. fifteen drops daily for thirteen days following. Both cases recovered completely; recovery commencing with the use of the aconite. He infers the temperature of uncomplicated tetanus at its height to be "somewhat above the normal, yet below the limit of actual fever—i.e., between (37.4 and 38.4) 99.3° and 101.1°." A higher temperature would probably show the presence of some complication, or an approaching fatal termination; a return to the normal heat may perhaps show that convalescence has commenced. In the second case a slight intercurrent pneumonia, lasting three or four days, actually raised the temperature, but only to 101.5°. Further observations are needed. The tincture used contained one part of aconite in twelve; having less than one-fourth the strength of the U. S. stronger tincture.—*Archiv der Heilkunde*, 10. Jahrg. 1. Heft. D. F. L.

We are gratified by seeing a monograph which appeared in this JOURNAL (year before last) translated into the German, and making the leading article in a first-class periodical—the *Allgemeine Wiener Medizinische Zeitung* for Jan. 12th, 1869. The paper, entitled Ununited Fracture successfully treated, by Dr. H. J. Bigelow, is done into German by Dr. Richard H. Derby, of this city.

We learn from a private source that Dr. Brown-Séquard has accepted a chair in the Paris Faculty of Medicine. This will not prevent him, we are happy to say, from making occasional visits to this country.

## Medical Miscellany.

### SLEEPING SICKNESS (MALADIE DU SOMMEIL).

—A short article with the above title, by Dumoutier, a surgeon in the French Navy, appears in the *Gazette des Hopitaux*, Oct. 13, 1868. The disease was met with on the coast of Africa, and especially in the territory of Gabo and Congo. There is an irresistible tendency to sleep, accompanied with no suffering, but with a general weakening of the limbs; the gait is uncertain, and the tactile sensibility seems perverted. During the sleep, the faces and urine are voided involuntarily. Intelligence seems unaffected, respiration is normal and digestion regular. The patients are shunned by their companions.

The disease is observed more especially among the slaves or captives from the interior, who have undergone great suffering and performed excessive work with insufficient and bad food—and who are the victims of chagrin, ennui and despair.

Strychnia, tonics, exercise and electricity were employed, all to no purpose.

At two autopsies, no change was found either in the brain, the cord, or their membranes.

CORNELL University is to have a rich collection of shells. Dr. Newcomb, who has been engaged in conchological researches and gatherings for the last thirty-five years, has amassed, it is said, a collection of nearly 5,000,000 specimens, and about 12,000 species with their varieties—all of which have been secured for the new University by Mr. Cornell. The labor of two years by Dr. N. will be required to arrange and mount his shells.

The following graduates of the Medical Department of Yale College received the degree of M.D., at the close of the recent commencement exercises:—George W. Benjamin, M.A., New Haven; David Crary, Hartford; John Morgan, Hadlyme; Byron W. Munson, Seymour; Daniel Poll, Hartford; Gould A. Shelton, Huntington; Hanford Lyon Wixon, New Haven; Luther H. Wood, Ph.B., New Haven. The Silliman prize was awarded to Luther H. Wood. A change in the curriculum of study is under consideration.

THE number of deaths in Glover, Vt., the past year was only eleven, with a population of nearly 1300. Two were males, aged 70 and 94—9 were females, four of them being 68, 70, 87 and 94, two were aged 45 and 58, and one was 18.

A CHARITY HOSPITAL AT JERSEY CITY.—The Common Council of Jersey City recently passed the following ordinance:—

“There shall be appointed by the Common Council four regular practitioners of medicine, and four regular practitioners of surgery, of the city of Jersey City, and members of the Hudson County Medical Society, who shall be known as the Visiting Physicians and Surgeons of the Jersey City Charity Hospital, and they shall constitute a Medical Board. Their appointment shall continue during the pleasure of the Common Council, and their services shall be gratuitous.”

PROF. THOMAS GRAHAM, Master of the Mint in Great Britain, a distinguished chemist, and author of the celebrated “Elements of Chemistry,” has written a letter to Prof. Horsford, of Harvard University, announcing his discovery of “Hydrogenium,” a new metal. Its specific gravity is about 2; its color is white.

### MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10 A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10 A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11 A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Case of Cutaneous Horn of the Eyelid—Membranous Croup; Tracheotomy—Case of Monstrosity—Cases of Laryngoscopic Operation—Cases of Sudden Death—Plea against Acid Medicines—Paper read before the Norfolk District Medical Society on Malignant Vesicles—Dedication of a Medical Hall at Washington, D. C.

The writer of a business letter from Lawrence, dated Jan. 29th, forgot to sign his name.

BOOKS AND PAMPHLETS RECEIVED.—Essentials of the Principles and Practice of Medicine. By Henry Hartshorne, A.M., M.D. 2d edition. Philadelphia: Henry C. Lea.—A Treatise on the Disease of Infancy and Childhood. By J. Lewis Smith, M.D. Philadelphia: Henry C. Lea.—A Conspectus of Medical Sciences. By Henry Hartshorne, A.M., M.D. Philadelphia: Henry C. Lea.—Syphilis and Local Contagious Disorders. By Berkeley Hill, M.B. Lond., F.R.C.S. Philadelphia: Henry C. Lea.—Prospectus of Archives of Ophthalmology and Otolaryngology, by Prof. H. Knapp, M.D., of New York, and Prof. S. Moos, M.D., of Heidelberg.—Joined Twins: The Obstetrical and Surgical Management, with Remarks. By A. B. Cook, A.M., M.D., Prof. in the Kentucky School of Medicine, Louisville.—Optical Defects in School Children: An Address before the Massachusetts Teachers' Association at its Annual Meeting, Oct. 17, 1868.—On the Identity of the White Corpuscles of the Blood with the Salivary, Pus, and Mucous Corpuscles. By Joseph G. Richardson, M.D., formerly Resident Physician of the Pennsylvania Hospital.—Venesection as one of the Means for the arrest of Unavoidable Hemorrhage. By C. C. F. Gay, M.D., Member of the Surgical Staff of the Buffalo General Hospital, Buffalo, New York.

DEATHS IN BOSTON for the week ending Saturday noon, January 30th, 116. Males, 60—Females, 56.—Accident, 6—aneurism, 1—aneurism, 1—disease of the bowels, 1—inflammation of the bowels, 1—disease of the brain, 9—inflammation of the brain, 1—bronchitis, 7—cancer, 1—consumption, 17—convulsions, 4—croup, 4—cyanosis, 2—debility, 2—diphtheria, 3—dropsy of the brain, 5—erysipelas, 3—exposure, 1—scarlet fever, 7—gastritis, 2—disease of the heart, 3—infantile disease, 2—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 11—marasmus, 1—pleurisy, 2—premature birth, 4—puerperal disease, 1—purpura hemorrhagica, 1—rheumatism, 2—whooping cough, 2—unknown, 4.

Under 5 years of age, 52—between 5 and 20 years, 17—between 20 and 40 years, 17—between 40 and 60 years, 16—above 60 years, 14. Born in the United States, 86—Ireland, 18—other places, 12.



CUTANEOUS HORN OF THE EYELID.



THIS CUT IS LIFE-SIZE.

[See Boston Medical and Surgical Journal, Vol. III., New Series, page 17.]

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, FEBRUARY 11, 1869.

[Vol. III.—No. 2.]

## Original Communications.

### CASE OF CUTANEOUS HORN OF THE EYELID.—(WITH CUT.)

By HENRY L. SHAW, M.D., Boston.

THE following is the history of a cutaneous horn of the eyelid, which although not differing pathologically from those occurring on other parts of the body, would seem from its location and size to deserve a permanent record.

J. C. came to the Mass. Charitable Eye and Ear Infirmary Dec. 17th, 1868. Aged 56. Irish. Laborer. A vigorous looking man; has always been healthy. Parents were long lived; neither they nor any of his relatives have had cancer or any growths similar to the one with which he is troubled. About six years ago, there was noticed on the middle of the free border of the lower lid a small pimple, which slowly increased in size. On its anterior surface there soon appeared a fine, hair-like outgrowth, which he described as having been very hard. This continued to grow, gradually assuming the appearance of a horn, until a year and a half ago, when it was about one inch and a half in length, and about the same in circumference at the base. It then, without any apparent cause, dropped off, leaving the pimple as at first. It had not been troublesome beyond the inconvenience of it, either during its growth or at the time of shedding. It had never been inflamed, and had received no treatment.

The present growth started, in a few days, from the same point as the previous one. It, however, grew more rapidly; and in a few months it attained the same size for which, in the first instance, the growth of years had been required. Since that time it has ceased to grow.

It has been of but little inconvenience till the present winter, when the weight of the horn has produced partial eversion of the lid and consequent displacement of the lacrymal punctum, thus causing considerable trouble from the overflow of tears. The jerking motion given to the horn dur-

ing nictation has given rise to a pricking sensation and fatigue of the lid.

The horn was firmly attached near the middle of the lower lid of the right eye, just below the tarsal cartilage, with which, however, it had no connection. It was curved, and looked not unlike the beak of a bird. It measured, over the superior curve, an inch and three quarters. In circumference at the base, it was an inch and seven eighths. The outer portion, for an inch or more, was of a brownish color, rough, and longitudinally furrowed, very hard, and horny in appearance. The end was blunt, the point having been snipped off with scissors. The inner fourth was more the color of the skin, elastic to the touch, and of about the density of cartilage. The base, when examined from the inside of the lid, had the appearance of being filled with sebaceous matter.

The removal of the horn was effected by making a circular incision around the base, care being taken to avoid the tarsal cartilage and hair-bulbs, and also to preserve as much of the healthy skin as possible. The base was quite firmly imbedded, but was readily separated with the scalpel. It was thought that the edges of the wound, which was circular, might be brought together vertically by a free dissection of the flaps. But on trial this was impracticable, on account of the corrugation and eversion of the lid which it produced. A single stitch was therefore introduced a little below the middle, and the upper portion, triangular in shape, was left to granulate.

The second day, the stitch was removed. The rest of the wound healed very readily.

Jan. 1st, 1869.—The cicatrix is quite small. There is slight eversion of the lid, which may be remedied by a plastic operation, should it increase.

Cases like the above are of extremely rare occurrence. In the works of Stellwag, Wecker, Wells, Mackenzie, and numerous other ophthalmologists, no mention is made of the subject. Haynes Walton, in his admirable work on the Surgery of the Eye, speaks of "having met with a few specimens of inspissated sebaceous matter on the

[WHOLE No. 2137.]

edges of the eyelids, but they have all been small, time being wanting to give them the more marked characteristic horny appearance to which they owe their name." In a monograph entitled *Des Tumeurs des Paupières*, by H. Thomas, reference is made to a case of Ph. Boyer's, cited in *Traité Élémentaire de Pathologie Externe*, by E. Follin. On looking at the original report of the case, however, it was found that the horn was situated upon the cheek, and not upon the lid. In the same work of Thomas, a case of Deval's is also mentioned. But the seat of this tumor is described as being on the brow, and he calls it a wen. We quote his own description of the case:—"Des tumeurs de tout genre peuvent se développer dans la région du sourcil. Une petite tumeur qui y était située et dont je pratiquai l'extraction fournit une concrétion calcaire d'un blanc grisâtre et du volume d'un gros pois." South, in the American edition of Chelius's *Surgery*, says:—"Horns have been observed on the eyelids by Voisin; on the lachrymal caruncle by Chavane; and on the conjunctive coat and tongue by Breschet. The works of the first two authors we have been unable to find. Breschet, when speaking of horns, simply says:—"Ainsi, j'en ai observé sur la langue, sur la membrane conjonctive." He does not mention any cases.

The only case recorded, so far as we have been able to ascertain, of a horn growing from the eyelid, is one to which our attention was drawn by Dr. H. F. Damon, who has investigated the subject with great care. It occurred quite recently, in the practice of Dr. Jonssaume, and is published in a monograph by A. Eloffe, entitled *Histoire Naturelle des Cornes*. We append an abbreviated translation of this case.

There came to my office, in 1865, a pale child, five years of age. The child presented, on the free border of the upper lid of the right eye, a horny appendage, truncated, wrinkled, and from a centimetre to a centimetre and a half in length, and of the size of a pipe-stem. By the aid of lateral traction, I removed the small body without difficulty. It was of the shape of a thimble. The wound was canterized with nitrate of silver, to prevent its reproduction. Some days after, it was canterized again, and it was only cured after the fifth application.

In 1866, the child was presented again, for two similar growths on the upper lid of the other eye.

#### A CLINICAL LECTURE.

MEMBRANOUS CROUP; TRACHEOTOMY; DEATH IN 37 HOURS. OCCURRING IN THE PRACTICE OF C. E. BUCKINGHAM, M.D.

Reported by GEO. W. GAY, M.D.

J. B., aged 7, a smart, healthy little fellow, of healthy history and parentage, got wet, Wednesday, Dec. 16th, 1868. On returning from school, where nothing unusual was noticed, he was dull and languid, and had a slight cough, which was unlike anything ever noticed in him before in its harshness and peculiar ring. He ate a little supper, went to bed, and passed a fair night. On Thursday, the cough was no worse, but his general condition was not improved.

Friday, very much better apparently; almost no cough.

Saturday, thought to be about well, and had a hot bath at night. Hitherto he had complained of nothing, and seemed to the parents to be suffering from an ordinary "cold," and received only the ordinary domestic treatment.

Sunday, Dec. 20th.—Was thought to be worse; in the afternoon, Dr. Buckingham was called to him, and found him as follows:—Pulse 120; resp. about 30; respiratory muscles of chest and abdomen in strong action; tongue dry; right tonsil swollen, red and dry, as was also the rest of the fauces. No membrane to be seen.

R. Morph. sulph. gr. ss.  
Potass. iodidi gr. viij.  
Syr. aurant. cort. q. s.  
ad ℥iiss. M.

Dose, teaspoonful every four hours till quiet.

Monday, Dec. 21st, morning.—Pulse rapid; respiratory muscles in strong action; skin livid; large muco-purulent collections in the fauces, which he expectorates on being told. No membrane in sight. Discontinue R., and give a teaspoonful of syrup of ipecac. every hour.

11, A.M.—Seen by Drs. Buckingham and Cheever. Pulse 140, slightly intermittent; resp. 36; moist râles in both chests; percussion normal; severe spasm of epiglottis, and all external respiratory muscles in strong action. Teaspoonful of syrup of ipecac. every ten minutes till he vomits.

1, P.M.—Has taken medicine regularly, and vomited a little twice. Pulse 144; resp. 36; great muco-purulent expectoration; skin less livid. Continue syrup of ipecac. every fifteen minutes.

9, P.M.—No membrane to be seen in posterior part of pharynx, but a few white



spots, appearing like the secretion of the follicles, are seen on each tonsil. Pulse 140, feeble; resp. 32, and very laborious.

9½, P.M., Dec. 21st.—Operation by Dr. Buckingham, assisted by Dr. Cheever and the writer. Ether administered, with little or no effect upon the respiration. Operation performed in the usual manner. Hæmorrhage moderate. As soon as the trachea was opened, a forcible expiration threw out several strips of a tough, stringy membrane. Tube secured in the trachea, and hæmorrhage ceased. Patient put to bed, with the pulse at 140; resp. 20, easy and regularly irregular—i. e., an interval between every three respirations. The temperature of the room was kept between 72° and 76°.

12.30, A.M., Dec. 22d.—Asleep. Pulse 150, regular, stronger than before the operation; moist tracheal râles; sibilant râles in left lung. Tube lined with a little of a muco-purulent substance, which dries quickly and is difficult to remove. Slight subsultus in forearms. Takes milk freely. Teaspoonful of wine every hour.

3, A.M.—Awake. Urine free (3ij.—3iv.). Pulse 160, a little irregular; resp. 32, quiet and deeper. No cough, and no secretion in the tube. Vesicular respiration in right lung. Subsultus increasing. Strength failing. Continue wine and milk.

8.30, A.M.—Patient seen by Dr. B. Pulse 160, regular; resp. 34; moist râles in trachea and both lungs. No subsultus. Dr. B. ordered a few drops of warm water to be injected into the trachea to loosen the secretion, and the patient to breathe through a moist sponge.

11.30, A.M.—Pulse 142, of fair strength; resp. 26, easy. A little of the secretion is ejected after using the water. No membrane is to be seen. He jumps up with alacrity to take his drink.

2.45, P.M.—Pulse 160, not quite so strong; resp. 52, very laborious, and free from râles in trachea and right lung; left lung full of moist râles. Water in trachea does not loosen the secretion. Skin hot, dry, and livid. Respiratory muscles in strong action and face covered with sweat. Ordered ammon. carb. gr. ij. every two hours.

6.15, P.M.—Sitting up in bed, and eating bread and milk. Tube dry. Pulse and resp. as before. Seen by Dr. B., who ordered a weak solution of common salt to be thrown into the trachea, and the wine to be omitted. Continue ammon. carb. and milk.

1, A.M., Dec. 23d.—Pulse 170 and up-

wards, and difficult to count; resp. 42, more laborious; both lungs full of moist râles. Cannot cough. Urine free. Not so strong as at last report. Ammon. carb. gr. ii. every hour.

7.45, A.M.—Has been pretty quiet since last report; has taken food and medicine regularly. Pulse 148, regular and stronger; resp. 42, regular, but no easier. Has passed a teaspoonful of urine at three different times. No distention of the bladder. Tube dry and clear; has required cleaning only once in six or eight hours. Salt water has lost all effect in softening the secretion. Neck swollen from emphysema. Skin very livid. A little restless. Teaspoonful of prescription of Dec. 20th given.

10.10, A.M.—Skin not quite so livid; resp. 34, no easier. Gets up on his elbow to drink his milk and medicine. Has refused nourishment but once since the operation. Mouth and wound lined with a thin layer of a dry grayish substance. Emphysema extends over chest and abdomen into scrotum. Legs purple.

10.30.—Dead, 37 hours after operation.

*Boston, January 19, 1869.*

## FISTULA IN ANO.

Read before the Suffolk District Medical Society, Dec. 26th, 1868, by JOHN P. ORDWAY, M.D.

PROBABLY no disease to which the human organism is prone, from the days of Hippocrates down to the present time, has developed more diversity of opinion among surgeons, as regards treatment, location, or extent. It is not my purpose in this paper to speak at length of the location of the rectal orifice of the complete fistula, which Desault, and many of the ancient authors, contended would be found sometimes in close proximity to the anus, and at other times at a considerable distance from it, while Ribes, Larrey, Sabatier, Boyer, Richer, and Brunel of Avignon (who wrote a special treatise on fistula in 1783) and others, contended that the orifice was situated just above the external sphincter. Nor will I mention those authors who believed there were no internal or external blind fistulas; but will speak of what seems to me a rational treatment, which experience and careful investigation for the past four years have led me to believe the only true treatment for the radical cure of "fistula in ano."

In doing this, I start with the positive assertion, that in my judgment the knife, so often used by surgeons with salutary

effect in other diseases, should never be used in this. To build up and repair, without destroying, sound tissues and muscles, upon which organs in the immediate vicinity are dependent, should be, it seems to me, the duty of every physician and surgeon. What should we say of the plumber, who, because the waste pipe had burst in some part, should advise opening the entire pipe, so that the filthy contents could spread all around, doing damage to everything with which they come in contact? Would he not rather attend to the locality from which the leakage proceeded?

Now, what is the character of the canal of a complete fistula, and why is it so difficult to cure? The walls of the canal are lined with what Laënnec calls "analogous accidental tissue," sometimes almost cartilaginous. There is also a mucous secreting surface, more or less indurated, and a discharge of pus, or of feculent matter from the bowel. In fact, several cases I have had under treatment have been so callosified that I could trace the extent of the whole canal by external digital examination.

The first thing indicated then, it seems to me, is, to remove the induration of the mucous membrane of the canal. How is this to be done? Certainly not with the bistoury, for you remove nothing by the cut; you merely divide, without destroying the preternatural surrounding tissue. Besides, you destroy the action of the sphincter, turn the whole mass of diseased tissue and cellular structure into one common drain, and then ask nature to assist in healing; while every evacuation from the bowels causes undue irritation, and removes whatever applications may have been made for the cure of the disease, for the time being, which in my judgment is a strong reason why this method of treatment so seldom fails of cure.

What, then, is indicated in the treatment? First, destroy the mucous membrane, and the induration of the fistulous canal by direct applications, either of tents, or through the syringe, governing yourself by the extent of inflammation, and by the feelings of the patient, at the same time using proper antiphlogistic and alterative remedies to assist nature in the cure; never allowing the fistula to heal except from the internal opening, or until the whole character of the discharge has changed. I have tried many remedies for direct application, such as solutions of muriate of iron, sulphate of zinc, carbonate of potash, nitric acid, iodine, chloride of zinc, &c., varying the remedy

according to circumstances, using nothing for any length of time which will destroy healthy tissue, but using such things as tend to remedy the abnormal condition of the parts. The loose character of the cellular structure in the ischio-rectal region, no doubt, to a certain extent prevents the healing of the parts after an abscess.

Should the ligature ever be used?

I take the ground that every case is curable without it; but if used, it has this advantage over the knife, that, if not drawn too tightly, the fibres of the sphincter muscle unite, almost as fast as they are separated, and thus the risk of dividing the muscles and parts at once (perhaps producing permanent injury for life), is avoided. But the ligature should never be applied until the callus is entirely removed. I have tested this manner of finishing up the work of cure in two cases which came under my care, more to satisfy myself, than because I believed a cure could not have been effected without it. In eleven cases of complete fistula; three cases of external blind fistula; and two cases of internal blind fistula, treated by me during the past eighteen months, I have been successful without the ligature.

The five-stranded hair ligatures, of Hippocrates; or packthread besmeared with escharotic, of Celsus; or twisted hair and hog's bristles, of Avicenna; or waxed hempen thread, of Flajoni, or knotted cord of Salicet, might have been of some service, had their employers first prepared the hardened walls of the fistula by direct applications to bring about a change in the character of the secretions. "*Eccentric Compression*," "*Incision*," and "*Excision*" have all had their advocates in ancient times, without any good practical result in support of their theories.

The caustics, too, used by charlatans in the last century, and at the present day, under the guise of secret remedies, might possibly have been of some service, provided they had not been of such extreme potency, as to destroy healthy surrounding parts. There is no doubt in my mind that the theory of direct local applications to the diseased parts is correct; the great point to be gained is, to change the character of those applications from time to time, as circumstances may warrant, and we shall then get good practical results. The same principle will apply to the healing of any chronic ulcer. We have at least this advantage over the charlatan, that we gain time, and accomplish in days that which, if successful at all, he requires weeks to attain.

Should *phthisical patients* be treated? I can see no reason why they should not. It is contended that fistula acts as an *exultery*; that it would be wrong to dry up the outlet of the fountain at the risk of increasing the primary phthisical disease. The arguments often used by writers on this subject, are, that fistula moderates the progress of pulmonary disease; that it is usually caused by the ulceration of tubercles; that the wound rarely heals up, and by its abundant suppuration acts in an injurious manner upon the system; that if by chance the wound should heal, the pulmonary disease rarely fails to become aggravated.

Nélaton says, "I never hesitate to operate unless the affection of the lungs be very far advanced, and in such cases I am unwilling to operate, *not because I think the operation will do harm to the chest, but because the incision does not heal, so that it is not worth while to operate.*"

In this connection, I would say, a patient of mine was cured of a complete fistula, who, when she first came to me, had well-marked phthisical symptoms. After the fistula was healed, her phthisical troubles left her entirely, and she is now in the enjoyment of perfect health.

I should not hesitate in any case of pulmonary disease to use the treatment laid down in this paper, because I believe that oftentimes fistula, through resorption into the general circulation, is the cause of pulmonary trouble, instead of a remedy for it.

Granting that fistulas do sometimes heal spontaneously, it is only by an exception to the rule, and it may be questioned whether the result has not been due to the fact that the constitution of the person possesses recuperative power enough to combat the disease in a natural way.

The advantages of this mode of treatment over the knife, in pulmonary disease, and in fact, in all forms of "fistula in ano," are these.

1st, The avoidance of the subsequent shock of the operation, as the physician can be governed by the feelings of the patient in making the applications. 2d, The immunity from excessive suppuration. 3d, The destruction of the hardened membrane of the canal without injuring surrounding healthy tissues; and 4th, Because the disease generally occurs in persons of unhealthy organism, who have not the power to stand the excessive drain made upon the system by the operation, and who with this treatment are more likely to obtain a perfect cure. I do not believe it is a surgical disease, or that it comes within the province of surgery.

In presenting this communication to my professional brethren, I do it in no spirit of egotism, nor with any desire to break down long established theories, except so far as they seem to me erroneous. I believe no physician who thoroughly tries this method faithfully will be disappointed in the result. I speak with confidence, when I say that experience has proved to me that "Fistula in Ano" can be treated without the knife, in all cases, with better results, and less risk of permanent injury to the patient.

### MALIGNANT VESICLE.

Read before the Norfolk (Mass.) District Medical Society, Jan. 13th, 1869, by SILAS E. STONE, M.D., of Walpole.

UNDER the title of malignant pustule I reported to this Society, last winter, eight cases, which were subsequently published, by request, in the Boston Medical and Surgical Journal, Feb. 13th, 1868, p. 19. I have now five more similar cases, of which the following is a brief synopsis.

CASE IX.—May 20th, 1868. C. B., aged 16. Right side of throat much swollen. Throat sore. Small, dark-brown slough, surrounded by minute yellow vesicles, about an inch below the angle of jaw.

21st.—Nausea noticed.

22d.—Much worse, but has rested some with an opiate. Thirst urgent. Swelling increased, extending to the chest, in front and back. Nausea increased. Pulse 100 and feeble.

23d.—Rested better, with opiate. Nausea less. Has retained some nourishment. Pulse the same.

24th.—Rested without opiate. But little nausea. Has retained all nourishment. Thirst less. Swelling and soreness less. Pulse 84, stronger.

25th.—Slough dry, but not separated. Patient convalescent.

CASE X.—June 15th, 1868. T. C., hair worker, 35 years. Was called on account of swelling of the neck of the patient, and his feeling sick and unable to work. Found him sitting up. Pulse 95. Right side of neck much swollen. Says he has no pimple or sore spot, but on careful search two malignant pustules were found in the hairy scalp, one about an inch below the occipital prominence, and the other three-fourths of an inch above it. The swelling extends down to the shoulder, and within three inches of the apple. Says he was taken sick on Saturday, 13th, with chills and de-

bility. 6, P.M., one dej. at noon. Now has severe pain in abdomen. Tongue not remarkable. Pulse 106. Thirsty and perspiring through the day, which was very hot. Still sitting up.

16th.—Pulse 93, and not as strong. Swelling enormous, down to spine of scapula behind; to the nipples, and three inches to left of sternum in front. No headache; no nausea; no delirium. Thinks he did not sleep four hours. Was restless. Now skin bathed in perspiration. The pustules not materially enlarged. Before evening the case passed out of my hands into that of an irregular practitioner, but I was informed by the wife that the patient vomited most of the next day; suffered greatly from epigastric distress, and died early on the morning of the 18th. Ecchymoses appeared after death. Treatment—tincture of iodine locally, and tonics internally, with nutritious diet.

CASE XI.—Nov. 1868. E. W., 32, widow, and has six children. Came to my house. Has been ailing several days. Noticed a pimple over middle of the sterno-mastoid muscle on Monday, 16th, but kept at work till about an hour before coming to my house. Has had no chills, but does not feel well, and came on account of the swelling of the neck around the pimple, which was not discolored. The swelling was diffuse, but marked, and about three inches in diameter. Pulse 68. The pustule was about the size of a small pea in diameter, and consisted of several yellow vesicles. Neither centre nor base was dark, nor was there any areola.

19th.—Pulse 128. Chill 8, A.M. Restless, dreaming and frightened in night. Slept about one hour. One dejection, yesterday. Swelling increased.

P.M.—Pulse 120. Swelling still increasing. Centre of pustule dark brown, and base of vesicles deep purple. Continuous pain in neck. Blood and serum examined by Dr. R. M. Hodges. Bacterids found in serum, none this time in the blood.

20th. Pulse 90. Slept two hours. Restless, and disturbed with frightful dreams. Has vomited green and frothy matter four times, but nevertheless has retained some nourishment. Has constant pain in head and neck. Size of pustule increased by new vesicles, and is now one inch in length, and one half inch wide. Slough dry and depressed at centre. Swelling of neck increased, extending to top of cheek and down to left breast. Tongue dry at tip. Left tonsil and whole inside of throat swollen. No chill in night. Left lung dull on

percussion throughout. Respiratory murmur less. Moist râles at lower lobe.

P.M.—Vomiting continues. Swelling increases. Voice husky. In swallowing, part of the liquid rejected through nose. Marked epigastric distress. Pulse 100, very compressible. Morphia gr.  $\frac{1}{2}$ .

21st.—Pulse 88. Slept most of night. Vomited but once since seven, P.M., yesterday. Voice better. Countenance cheerful. Tongue clear. No epigastric distress. Pustule increased in width. Now five-eighths of an inch in diameter. No new vesicles. Whole slough dark brown. Swelling softer. Retains nourishment.

P.M.—Dulness continues over whole of left lung; respiratory murmur less audible. Swelling softer, except near pustule, where it is quite firm. Fluid from vesicles turbid and reddish; not clear yellow serum as before. The vesicles have a withered look. No vomiting. Had some refreshing sleep.

22d.—Pulse 75. Slept most of night. Some pain in head and neck. No new vesicles. Bubo at angle of jaw. Line of demarcation perceptible.

27th.—Has continued to improve. Sitting up.

Dec. 4th.—Removed the eschar. The subcutaneous slough was not as defined as the eschar, and has been thrown off in shreds from time to time, until a few days ago. At present the ulcer thus formed has not healed. In this case the bacterids, to which Davaine has called attention, were demonstrated at various times in the serum of the vesicles, but not satisfactorily in the blood, although appearances indicating their presence there were found.

CASE XII.—Dec. 27th, 1867. S. R., 16 years. Works in hair factory. Had been somewhat ill for some days, but had kept at work till six o'clock of the previous evening, and until within a few days had been as well as usual. Did not sleep last night on account of restlessness and epigastric pain. In the morning took salts, which was followed by two dejections. As the pain and distress continued, I was called about five, P.M. Found her in bed, frequently throwing up her arms, tossing from side to side, moaning and sighing. Her mind was perfectly clear, and she even smiled when I spoke to her. There was no pulse at the wrist. Her countenance was of a dusky leaden hue, and, like her hands, was cold and damp. There was some dulness over both backs and mucous râles were heard throughout the lungs. The distress continued with increasing severity until she gradually became unconscious, and died

about half past eight the same evening, three and a half hours after I first saw her. Ecchymoses appeared after death. No post-mortem examination allowed.

\* CASE XIII.—June 20th, 1868. C. P., 16 years. Has been for a short time at work at the hair factory. His mother called in the evening, stating that her boy had been unwell for three or four days, and had remained at home on that account; but during the time had been about house and out of doors. This morning she had given him a purgative. But as this had not operated, and as he had pain in his bowels, she wished to know what to do. I directed castor oil and hot fomentations. At two the next morning I was called. The pain which he located about the umbilicus had continued and increased in severity, although two liquid dejections had occurred. He was in bed, moaning and tossing about, and constantly throwing up his arms. He did not reply when spoken to, and seemed not to hear. The abdomen was flat on percussion; not distended, but the muscles were rigid. The hands and feet were cool, and there was scarcely any pulse at the wrist. He could swallow, but with difficulty. A large serous discharge passed away unconsciously while I was there. He continued to sink, and died at nine the next morning, seven hours after I first saw him.

*Autopsy*, by Dr. Morrill Wyman, of Cambridge, thirty-two hours after death. Rigor mortis well marked. Shoulders, back of neck, head, and ears, quite purple and uniformly so. Eight to ten ounces of clear, yellow serum removed from abdomen. In iliac fossa peritonæum slightly changed, less polished, with a few capillaries somewhat injected. Ecchymosed patches noticed on ilium and cæcum, most marked within three or four inches of ilio-cæcal valve.

In removing intestines the cellular tissue around head of colon, right kidney, and as high up as the liver was emphysematous. The left kidney was pale, but not diseased; the capsule easily separated. The right kidney, on section, gave some rather dark grumous blood; tubuli distinct, and capsule easily separated. The liver was pale, firm, and of natural size—gall bladder distended with bile. The spleen appeared slightly roughened with whitish dots of lymph; otherwise normal. Pancreas presented nothing noticeable.

The ilium at the junction and involving the ilio-cæcal valve, embracing nearly the whole circumference of the intestines, presented a dark purplish-brown portion, with grayish surface, the dark color extending

through all the coats of the intestine. Above this, for the distance of four or five feet, gradually diminishing in intensity, the solitary glands were extremely prominent, like imbedded shot. They were noticed in the cæcum and in the colon. The mesenteric glands leading from the junction of the ilium and cæcum to about three feet up the ilium, were enlarged, from the size of a pea to that of a hickory nut. The larger glands were dark colored externally, quite firm, and at section appeared mottled with gray. The smaller ones were generally pink in different degrees of intensity. The bladder contained four or five ounces of clear, yellow urine. Stomach not opened.

The lungs were generally soft, and crepitated.

The heart, normal, contained hardly any blood, and but one small clot.

These five, with the eight previously reported, make thirteen cases which I have myself attended. There were three others which did not come under my immediate observation. Thus sixteen cases, in all, have occurred in persons working in or connected with a hair factory in the vicinity.

The first eight cases I called malignant pustule, which they certainly are; but on further consideration, I rather prefer the term malignant vesicle, as given by Tanner in his "Index of Diseases," inasmuch as a form of disease occasionally occurring upon the face has also received the former appellation, though it has little in common with the present affection.\*

From all accounts it is evident that malignant vesicle owes its origin to a specific poison derived from a disease in certain classes of animals. All evidence goes to show also that the morbid material may be communicated to man by the skins or hair of diseased animals on which the poison has been deposited. This is the only way that the occasional appearance of the disease can be accounted for among hair cleansers and workers, as in the instances we have witnessed and reported. From all I can learn, the disease has rarely appeared in this country. The inoculation of putrescent matter fails to account for its introduction.

The disease is very seldom, if ever, communicated from man to man. I have frequently known of patients sleeping with the healthy, but have never seen a case that could be traced from one person to another.

Malignant vesicle, malignant oedema, and

\* See a valuable paper in the Boston Medical and Surgical Journal, Jan. 7th, 1869, founded on these cases, by R. M. Hodges, M.D., of Boston.

charbon fever, are the three forms in which the disease usually appears. By some, all three are included in the term charbon; by others, charbon and malignant pustule are accounted synonymous.\* Malignant œdema as a separate affection, I have not seen, but cases XII. and XIII. may rightly, perhaps, be classed as charbon fever.

The disease has a period of incubation, eruption, and intoxication. It is not always easy to ascertain the moment of inoculation; but so far as observed, incubation continues from three days to a week.

Malignant vesicle is a virulent tumor, inflammatory and gangrenoid, characterized at the beginning by an appearance on the skin of a non-purulent *serous vesicle*, usually having an areola, and thought by some to resemble the bite of an insect. This vesicle is soon converted into an eschar,



bordered by a ring of little vesicles (as indicated in the accompanying figure), resting on an indolent and more or less hard and elastic base. This base is always indurated, but cannot always be traced, on account of the surrounding œdema, which is most marked near the pustule, and decreases gradually, according to distance from it.

In three to five days, if left to nature, signs of reaction may begin, but more often symptoms of general intoxication appear. After general feverishness, with pain in head and back, there comes on epigastric distress, and vomiting of glairy and bilious matter. The bowels are usually constipated. There is also great anxiety and thirst. Intelligence generally remains but little disturbed to the last. When fatal, the disease usually terminates from the sixth to the ninth day.

\* At the Imperial Academy of Medicine, Paris, session August 11, 1868, M. Davainé communicated the results of his experiments upon animals to verify his theory of the identity of charbon and malignant pustule, which he attributes to the introduction of bacterids into tissues, whence they invade adjoining parts and finally become general.

To introduce bacterids without wounding vessels, he used a small instrument heated by boiling water, with which he touched the skin of guinea-pigs. He thus obtained little vesicles, into which he introduced blood containing bacterids from the spleen of an animal dead of charbon.

At first nothing occurred, but the next day one of the guinea-pigs had a vesicle, which in a few hours became a third of an inch in diameter, with a red areola, and contained serosity full of bacterids.

Another guinea-pig, inoculated in the same manner, presented likewise a vesicle filled with bacterids.

This, he thought, demonstrated the identity of malignant pustule and charbon, by the experimental reproduction of malignant pustule by blood of charbon.—*L'Union Médicale*, Aug. 13th, 1868, p. 233.

Malignant vesicle is to be distinguished from herpes, acne, boil, malignant anthrax, —which is of larger size,\* very painful, and shining red—simple erysipelas, common gangrene, and the bites of insects.

Of late much stress has been laid on the appearance of Bacterids in the serum of the vesicles, and in the blood of the patients.† By some experimenters their existence is considered diagnostic of the disease. They are also thought by some to be its communicating element. They were found in some of the cases under my observation, but the relation they sustain to the affection seems to require still further investigation.

As to treatment little need be added to what was said in regard to previously reported cases.‡ Writers recommend excision, actual cautery thoroughly applied early in the disease, caustic potassa, Vienna paste, corrosive sublimate, especially; fomentations; emetics, purgatives, and bleeding; cooling drinks; tonics and stimulants. In all the cases under my care heroic or debilitating measures were abstained from. In case E. W., one of the severest, a favorable change occurred after the hypodermic injection of a quarter of a grain of sulphate of morphia. This was administered more to relieve the intense suffering from epigastric distress peculiar to the disease, and the vomiting, than with an expectation of prolonging life. It was a point of some interest to me that this case, the severest that has as yet recovered under my care, received no local treatment, as I was desirous to watch its progress unmodified by any disturbing application.

OPIMUM AND STRAMONIUM.—Dr. J. F. Treuman was called to see a mother and two daughters. They had had paroxysms of ague, and had taken, as they supposed, fennel seed, but it proved to have been stramonium-seed instead. When first seen, the mother and daughter were raving like maniacs, while the other was rapidly sinking into coma. Tr. opii was at once given, and morphia injected subcutaneously. The youngest girl recovered rapidly, but the others only after having taken several large doses of morphia. The recovery in each case was complete.—*Chicago Medical Journal*.

\* See Dr. Hodges's paper, before referred to.

† See Dr. Hodges's paper, loc. cit., and note from *L'Union Médicale*, in preceding column.

‡ Boston Medical and Surgical Journal, Feb. 13th, 1868, p. 21.

# Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 11, 1869.

IN compliance with our solicitation that he would supply us with a letter on some current topic in physiology, Prof. JOHN C. DALTON, of New York, has sent us the following, which we take great satisfaction in assigning the leading place in this number of the JOURNAL. We have some reason to hope that this is the precursor of a series of occasional letters from some of the most eminent in various walks of the profession; the efforts to obtain which communications will, we presume, be willingly offset against the labor of composition, or compilation, which we shall thus from time to time escape. And we believe no greater service can be rendered to our readers than in providing that they shall be now and then addressed in these pages by teachers and others who are recognized as among the authorities of this period.

NEW YORK, JANUARY, 1869.

MR. EDITOR,—The most interesting event in the physiological circles of this city for the present month, was the reading of a paper on the Cerebellum, before the New York County Medical Society, by Prof. WM. A. HAMMOND. The well-known ability of the author, and his especial devotion to the physiology and pathology of the nervous system, made it an occasion of more than ordinary interest for the members of the Society. The paper was a very elaborate one, and went over the entire history of the two principal theories of the function of the cerebellum which have been in vogue, as physiological doctrines, for the last twenty-five years: Of these, the first and oldest was that of Gall, which regards the cerebellum as the seat of the sexual instinct and of the reflex actions necessary to its activity. Notwithstanding some rather plausible considerations advanced by Gall in support of this doctrine, other facts, drawn both from comparative anatomy and from pathological observations, are so unmistakably opposed to it, that it has been for some years practically abandoned.

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Prof. Hammond presented all these conflicting facts in detail, and showed clearly that the theory of Gall had not been rejected by physiologists without good reason.

He then passed to the history and discussion of the theory of Flourens; viz., that the cerebellum is the seat of a coördinating power for complicated muscular actions. This still remains the debatable ground on which the discussion of the cerebellar functions must be mainly carried on. For however differently the experiments of Flourens may be *interpreted* by various writers, their direct results have never been in the least degree invalidated since he first announced them in 1842. In fact, there is hardly any phenomenon which follows more distinctly or more certainly upon any experiment upon the nervous system, than the irregularity of the voluntary movements always produced by injury or destruction of the cerebellum. Prof. Hammond, however, cited at length the singular facts which have been observed since the discovery of Flourens; viz., that birds which have lost their power of coördination owing to removal of a portion of the cerebellum, may *again recover* this power without the re-production of the missing nervous substance. This has been proved in repeated instances by keeping the subjects of the experiment until nearly or completely recovered, and then killing them and examining the condition of the mutilated parts. It is thus shown that a pigeon, with only one half or one third of his cerebellum remaining, may still be able, at last, to co-ordinate his muscular action sufficiently for all ordinary purposes.

How is this to be accounted for? No doubt it is because the effect of an operation on the cerebellum is not wholly due to the simple loss of its substance, but partly, at least, to the shock or temporary violence inflicted on the cerebellum as a whole. If the animal survives, he may recover from the temporary effects of the shock, and retain only the permanent deficiency due to loss of substance. This deficiency may not be observable in the more simple acts of standing, walking, &c., but in the more extraordinary exertions which

call forth all the combining power of which the nervous centre is capable.

Prof. Hammond, however, believes that the immediate effect of shock upon the cerebellum is the only one which gives rise to the phenomena observed in these experiments. He thinks that injury to the cerebellum produces a state of *vertigo*; and that the subsequent irregularity of the voluntary motions is due to this condition alone. Perhaps the most noticeable point in his paper was the distinction thus drawn between the actual loss of coördinating power and the condition of vertigo, by which it is temporarily disturbed.

No doubt this distinction is a sound one. A man may lose the power of coördinating his muscles, and thus be unable to direct his foot or his hand to a particular spot, although he may know exactly where that spot is. On the other hand, he may lose the power of judging correctly of the distance and direction of an object, and thus be unable to reach it because he is deceived with regard to its position, the power over his muscles remaining unimpaired. This is the condition of vertigo, such as occurs in intoxication, and as a result of some accidental injuries to the head. The question therefore remains, to which of these causes shall we attribute the irregularity of movement observable after injuries of the cerebellum?

In the discussion which followed the reading of Dr. Hammond's paper, it appeared that all were not prepared to decide positively on this point. The definite and uniform results thus far derived from experiments on the cerebellum, and the peculiar and striking character of the phenomena produced by them, have made a very strong impression on the minds of physiologists. They cannot easily avoid the conclusion that in the cerebellum there resides, either a power of coördination proper, or else a nervous endowment which enables the individual to appreciate correctly the distance and direction of neighboring objects; and that one or the other of these faculties is suspended or disturbed by any injury inflicted on this portion of the brain.

After all, the greatest difficulties in the way of a positive doctrine of the cere-

bellar function are those presented by the results of pathological investigation; for it would almost seem as if each successive theory had been met, in its turn, by some case of disease, degeneration or atrophy of the cerebellum, without any marked disturbance of the functions attributed to it. In the estimation of Prof. Hammond, these cases are damaging and even fatal to every received doctrine of the present day. It is always a good thing to have our opinions overhauled from time to time, and summoned anew to the bar of criticism by such a *résumé* as that given in his paper.

J. C. D.

#### COHNHEIM'S ALLEGED DISCOVERY.

In the *Dutch Archives of Medical and Natural Sciences*\* (as we learn through the *British and Foreign Medico-Chirurgical Review*), Dr. Koster treats of Cohnheim's alleged "discovery," by which pus globules outside of the capillaries are made out to be white corpuscles of the blood which have emerged through orifices in the capillary walls. Dr. Koster appears to think this "discovery" to be quite established; and goes on to say, "if we should soon succeed in obtaining a more positive and distinct explanation of the origin of the change of the circulation of the blood, as a starting-point for inflammation, a great light will undoubtedly be shed by the facts discovered in late years upon a process of which we may, in general, assert what Cruveilhier said of phlebitis in particular, '*qu'elle détermine toute la pathologie.*'" That is to say, as Dr. K. seems to suggest, a person is exposed, while heated, to a draught of cold air, and has, within a few days, a pneumonia. Between the chilling process and the inflammation there is a hiatus in science.

We learn, however, through the *Archives de Physiologie, &c.*, of Dr. Brown-Séquard, that Prof. K. Balogh, of Pesth, denies the accuracy of Cohnheim's conclusions relative to the white corpuscles. Repeating the experiments of the latter, Prof. Balogh readily perceived the white globules collect at certain points of the vessels, particularly at the origin of the ramifications; but, in spite of the closest attention, and although

\* Conducted by Donders, Koster and others.



the experiment was often watched for more than twenty-four hours, he never saw a white corpuscle on its way through the walls, or having emerged. He considers the views of Waller, as reproduced by Cohnheim, the result of optical error. He does not positively deny the existence of openings in the walls of the vessels, but is convinced that those openings are only large enough to allow the passage of fluids. He thinks the white globules found in the vicinity of the vessels are produced by the multiplication of cells of connective tissue.

#### THE SUPERINTENDENT OF THE INTERNAL HEALTH DEPARTMENT.

Almost at the last moment before going to press, we are apprised that the election of a Superintendent of Health is soon to be acted upon by our City Government. Were there time to bring the attention of our profession to the matter, we are sure there would be a universal call for the appointment of a medical man, and one of high standing, to the office. It is mortifying to recollect that Boston—which has flattered herself that she was a model city in all municipal arrangements—is behind New York—which we usually look upon as displaying all possible mismanagement in the administration of her affairs—in the regulation of the Internal Health Department. The latter city has done a great work in the past three years through the Metropolitan Board of Health, with Dr. Edward Dalton as Sanitary Superintendent, having a corps of medical officers responsible to him. It is time we protected the lives of our citizens in a similar manner.

When the recent epidemic of cholera was expected, it was feared that New York would be a favorite victim of the devouring pestilence. But, when the cholera came, it found the great metropolis unusually cleanly, and that city was, we believe, among those which suffered least in proportion to size and density of population. The purification of New York was the result of the vigorous and intelligent efforts of Dr. Dalton and his assistants.

Every large town in England, we are informed, is protected by a medical man clothed with large powers by act of Parlia-

ment, for the exercise of which authority he is held responsible.

Our City Physician does not control the Department of Internal Health, and the way in which the conduct of that department has been administered under the late *régime* has been far from satisfactory to some at least who are good judges of what ought to be. Let us hope that heed will be given in time to the recommendation of one at the head of our municipal government, and the health of our citizens placed under the ward of members of a profession which should best know the requirements of public hygiene.

We have received from our friend, Dr. Buckminster Brown, a handsomely bound copy of his paper read at the last meeting of the Massachusetts Medical Society, being a collection of cases in Orthopaedic Surgery. Appended to the letter-press is a series of finely executed plates representing specimens of club-feet and other distortions; also the results of operations. It is a satisfaction to belong to a profession, one branch of which can so convert deformity into symmetry.

"ARGENTO-ALBUMINURIA."—Under this title is described a disease resulting from the medical use of nitrate of silver, observed by Lionville and Vulpian. The kidneys, upon section, appeared as if sprinkled with fine black or bluish dots, which, in fact, are the Malpighian bodies stained by deposited oxyd of silver. The patient (for but one case is mentioned) had taken in all about one hundred grains of the nitrate, during a period of over eight months, five years before her death. The edges of the gums, the choroid plexus, and the supra-renal capsules were also discolored. Most of the tissues of the body may be similarly affected.—*Allg. Wien. Med. Ztg.*, Jan. 5.

Such of our readers as choose to make the experiment, may observe the process of discoloration under the microscope. By adding a weak solution of the nitrate to a group of epithelium cells, their edges may be seen undergoing discoloration.

D. F. L.

COMPRESSION OF THE ABDOMINAL AORTA.—In a case of cicatricial contraction of the vagina, Dr. Nagel employed a modification

of Dieffenbach's plastic operation; dividing the old cicatrix, he transplanted in between its cut edges a portion of skin from the perinaeum. On the fifth day arterial hemorrhage occurred; this was repeated on the eighth, when, other modes of arresting it being impracticable, forcible compression of the aorta by the hands was resorted to, with perfect success.—*Ibid.*

We do not find it stated how long compression was maintained. D. F. L.

**BANTING'S SYSTEM AS A CAUSE OF BRIGHT'S DISEASE.**—Dr. Th. Clemens, of Frankfurt a.M., relates three cases of his own, in which the patients had carried Banting-ism to an excess. So insidious was the invasion of the renal disorder, that when the patients first applied for medical aid the symptoms of Bright's disease, fully developed, were found in each instance. All the cases were fatal, and each was accompanied with a rapid and profound degeneration of the whole system, associated with symptoms referred to the brain and cord.

Dr. C. believes that a tendency to the disease is caused by the loss of the fat of the kidney, together with an excessive supply of albuminous material in the blood.—*Deutsche Klinik*, Jan. 2. D. F. L.

**CASE OF TWINS.**—The mother, in the fourth month of pregnancy, had "a surgical disease of one leg," and at the full term was delivered of twins; one a living, full-grown foetus, the other dead, and of little more than three months' development. The latter was adherent to the placenta of the living child, but had a separate amnios of its own; was not macerated, but "mummified." Its death was ascribed to the disease of the leg.—*Allg. Med. Centr. Ztg.*, Jan. 6. D. F. L.

#### EXTRACTS FROM FOREIGN MEDICAL JOURNALS.

*Professor Owen's Conclusions on the Origin of Species and Nature of Life.*—We showed in a former article that Professor Owen is no votary of the Divinity of Chance. On the contrary, he believes that as every individual animal passes through a succession of forms—embryonic, infantine, adult, and aged—so each group of similar animals descended from common parents, which we call "species," has an innate and preordained tendency to deviate from the parental type, and to produce new forms of a more specialized character. "A purposive

route of development and change, of correlation and interdependence, manifesting intelligent Will, is as determinable in the succession of races as in the development and organization of the individual. Generations do not vary accidentally in any and every direction, but in preordained, definite and correlated courses."

And as with the coming in of new species, so with the extinction of old ones; if the one cannot be believed to be due to fresh acts of miraculous creation, so must the other not be considered due to occasional cataclysm or convulsion, but to the steady operation of law. One cause of extinction recognized by Professor Owen is defeat in the struggle for existence. In 1850 he had shown this, when he said that, in a dry season, the large mammal will suffer from the drought sooner than the small one; if food be scanty, the large one will perish before the small one; if new enemies be introduced, the larger and more conspicuous will be the earlier victims; and smaller animals are, as a rule, more prolific than large ones.

As a test of the theories which account for the origin of species, Professor Owen brings forward the coral. The species of existing *anthozoa* cannot be traced very far back; those with a flexible or with a branched calcareous axis begin only at the tertiary period, and of the genera of eocene lamellate or stony corals all the species are extinct, and have been superseded in their grand and useful operations by those now forming reefs and atolls. As we extend our researches back in time, we find generic and family types of coral polypes passing away; and that the prevalent pattern of stellate cups of rays of *six* or its multiples has superseded a similar pattern of *four* or its multiples.

Now, taking these facts, Professor Owen asks whether a direct act of miraculous creation must be invoked to account for each successive species of coral. Such an idea he dismisses as contrary to the worthy conception of an all-seeing, all provident Omnipotence. It is not, he says, above, but against reason.

Let us, then, assume that the modern are the direct descendants of the ancient corals, and with Professor Owen "test the propounded explanations of their origin by secondary law." That of appetency is untenable, because a coral polype cannot exercise volition. Lamarck's creative machinery can only be applicable to creatures high enough to "want to do something." Is there any difference in the "ambient

medium"? We have no knowledge that the polypes of the Devonshire or Cambrian hills worked in an ocean different from the present, or that, if different, it could change a quadripartite into a sexpartite disposition of the coral cells. The "personifying the fact of such transmutations by the term 'Natural Selection' gives no more insight into the manner of the operations than we learn of that of the budding out of a new leg in a maimed newt by being told that it was done by the "nisus formativus," or by "pangenesiis"!

Professor Owen sums up the contrast between his own theory of "Derivation" and Darwin's theory of "Natural Selection" in few words, which we thus venture to abridge. "Derivation" holds that each species changes in time by virtue of inherent tendencies. "Natural Selection" holds that this is effected by altered external circumstances. "Derivation" sees the purpose of the Creator in the variety and beauty of creation, and the adaptation of each member of it to others, and especially man, a being capable of appreciating beauty. "Natural Selection" feels that if ornament or beauty in itself should be a purpose in creation, it would be absolutely fatal to it as an hypothesis. "Natural Selection" leaves the origin and succession of species to the fortuitous concurrence of outward conditions. "Derivation" recognizes purpose. . .

Professor Owen, dismissing the old doctrines as absurd, and Darwin's pangenesiis as absurd, believes to the full in what has been called "spontaneous generation," or the incessant new development of living beings out of non-living material. He sides with Pouchet and Child against Pasteur. He does not believe in "panspermism," or the doctrine that all the forms of life produced in decaying organic matter come from germs dispersed through the air. He prefers believing that, when the requisite material and conditions are present, other forces are resolved into vital force; and sees "the grandeur of creative power," not in the exceptional miracle of one or few original forms of life, but in the "daily and hourly calling into life many forms by conversion of chemical and physical into vital modes of force." The "CAUSE which has endowed His world with power convertible into magnetic, electric, thermotic, and other forms or modes of force, has also added the conditions of conversion into the vital mode." "Change of force forms part of the constitution of the Kosmos."

We will not follow Professor Owen minutely in the comparison which he draws

between life and magnetism, and between all the actions of living beings, from the attraction of the amœba by a bit of meat to the highest phenomena of consciousness in man; of which his conclusion is that from the magnet which chooses between steel and zinc to the philosopher who chooses between good and evil, the difference is one of degree, not of kind, and that there is no need to assume a special miracle to account for mental phenomena.

Although these ideas must fairly be called materialistic, and openly oppose the notion of an "immaterial indestructible soul," yet nothing can be further from Professor Owen's doctrines than the *low* materialism which sees law without a law-giver, force without an author, and no God apart from matter. It must be remembered in the first place that Professor Owen's ideas of life necessitate the belief in the perpetual presence and working of a personal God, the Lord and Giver of life; that he believes in a future life and resurrection and judgment of the dead, "on the ground of their being parts of a Divine revelation;" and that he shows (and quotes the history of the witch of Endor and of the doubting apostle Thomas to exemplify it) that we really are in no condition to say what is material and what immaterial. We only know of force and its effects, but (as Faraday said) as for what causes these effects we get nothing by defining them as material or immaterial. For our own parts, we must not wander into the ground of dogmatic faith, but, as regards reasonable opinion, we must say that Professor Owen's own doctrines tell quite as much for the existence of an immortal soul as not; that the results of force must be as indestructible as matter, save by the will of God, and soul is one mode of force; and, if the matter be doubtful, we ourselves are not ashamed to be biassed by the spiritual instincts of universal man, and to say, with the Pagan philosopher, "*Si in hoc erro, quod animos hominum immortales esse credam, lubenter erro, nec mihi hunc errorem quo delector dum vivo extorquere volo.*"—*London Med. Times and Gazette.*

#### On Craniotomy and Cæsarcan Section.

By THOMAS RADFORD, M.D.— . . .

Some writers who advocate and sanction craniotomy in cases of extreme pelvic distortion have never performed the operation, nor ever even witnessed a labor which was thus obstructed. Some of them, however, have the candor to acknowledge their want of personal experience. Although it is so positively stated than a mutilated full-grown

infant can be brought through the minimum of pelvic space, can we be assured that this operation can be safely performed? and is there not quite as much danger to the life of the woman as is incurred by the Cæsarean section? I have not the least doubt there is quite as much risk to the life of the mother from craniotomy performed in the higher degrees of pelvic distortion, as there would be from Cæsarean section—both operations being freed from the contingent mischief produced by protracted labor. Writers of great eminence entertain the same opinion.

Can the dimensions of the pelvic apertures be ascertained with such mathematical accuracy as to justify the practitioner in having recourse to craniotomy in the more extreme cases of pelvic distortions? From my own long and extensive practical experience I am firmly convinced that it is impossible to ascertain with precision the exact degree of pelvic contraction in such cases as those in which a very small fractional mistake makes the difference between life and death of the woman. Even in the lighter shades of pelvic distortion it is quite impossible to compute the exact measurements. My opinion is substantiated by our best writers and able practitioners. Practical results also corroborate the above statement.

Many cases are recorded in which the head of the infant has been opened by obstetricians of high rank, but who have afterwards been unable to deliver the woman; the patients have been left to die after the infants had escaped into the abdomen through a laceration in the uterus. I have met with cases of this kind. One is recorded in the London *Obstetrical Transactions*, vol. viii. p. 158. In some other cases abdominal section has been performed in order to extract the mutilated infant. A dogma in obstetrics is sometimes highly dangerous to set forth, especially if practice based upon it leads to the sacrifice of life.

It is stated, if there be a space in the antero-posterior conjugate diameter of  $1\frac{1}{2}$  inch, and a transverse diameter equal to 3 inches, the base of the head of a full-grown infant, face brought first, can be dragged through the pelvis. I deny the truth of this statement, unconditionally put forth as a general rule, regardless of the kind of distortion or the parts of the pelvis involved in the mischief.

I have attempted to introduce Dr. B. Hicks's cephalotribe into a case of the pelvis, but I found it quite impossible to place it within the cavity in its unexpanded state,

much less to open it for the purpose of embracing a head for the purpose of crushing it. . . . . *Ibid.*

Accounts of men with tails have been helping to fill the columns of the daily papers during the Christmas holidays. Many of these stories have taken their origin from monstrosities with spina bifida. To adorn a tale and to be adorned by a tail are two things which differ in frequency. We should like to see a specimen.—*Ibid.*

The *Moniteur* recently contained an account of the discovery by a M. Bertrand of a quantity of fossil human remains in quaternary drift. The remains were discovered in the Boulevard St. Pol, at Clichy, in a sandpit at the depth of seventeen feet, and covered by layers of humus, red sand, five of yellow sand or loess, the latter alternating with four of clay. The last bed of loess rested on the drift. The bones were associated with those of elephant, rhinoceros, hippopotamus, stag, horse, and ox. The skulls found were wedge-shaped and dolichocephalic, the forehead narrow, the cheek-bones very prominent, the occipital foramen very far back, and the meatus auditorius very horizontal.—*Ibid.*

*Apropos* of education, we noticed a sensible letter from Mr. Henry Hayman in the *Times* of Saturday last. Its immediate object is to point out the claims of geology as a branch of natural science the most fitted for the purposes of study in schools. On this he discourses ably and well. But the point to which we would draw attention is his testimony, founded, as he says, on several years' experience in more than one post of chief responsibility, that natural science is no cure for dullness in the pupil, nor has it any special aptitude for bringing out faculties which have lain dormant in other lessons. He gives the palm to studies which are distinctively human in their interest, such as language and mathematics, as the corner-stone of solid education. He maintains that they are fitted in general to invigorate, concentrate, and regulate the forces which lie within the mind itself. We heartily agree with him.—*Ibid.*

*Sanitary Character of Andine Heights.*—Dr. John H. Scrivener, having recently returned from South America, where he practised for many years as a physician in Potosi and other cities in Bolivia, and in the Argentine Republic, has, in a small pamphlet with the above title, recently published, directed the attention of the Profession and of the general public to the re-

markable salubrity of the climate in the mountainous regions of these fine countries, as indicated by the entire absence of pulmonary consumption among the natives, and the great benefit that has been derived by many invalids from the coast and from distant countries when they have resided there for some time.

Dr. Archibald Smith, in his essay on the "Climate of the Swiss Alps and of the Peruvian Andes Compared," remarks that "incipient tubercular phthisis is one of the most common pulmonary affections known in Lima and other parts of the coast of Peru. The disease is almost certainly cured, if taken in time, by removing the patient to the open inland valley of Jauja, which is from ten to eleven thousand feet above the level of the sea." The experience of Dr. Scrivener in respect of the Andine heights of the regions to the south of Peru, and especially of the mountains of Cordova, fully confirm the statements of Dr. Smith. With a marked hereditary tendency to consumption himself, having lost two brothers and two sisters from the malady, he can testify strongly to the good effects of the climate upon himself, independently of what he observed in the case of others.—*Ibid.*

The Paris *Almanach de Médecine* for 1869, the nearest approach to the London Medical Directory (for there is no general Medical Directory for France), furnishes some figures that may be of interest. The Almanack first gives an account of the course of study to be pursued by students, and of the laws regulating the profession. The medical student must, before he makes his inscriptions, have obtained the diplomas of the Baccalaureat-ès-lettres and -ès-sciences, the first costing him 100 and the second 50 fr. For his purely medical studies he has to make sixteen inscriptions during the four years over which these are continued, the entire expense necessary for obtaining his Doctor's diploma being 1272 fr., to which 150 fr. of optional expenses for special advantages may be added. The diploma of the *officier de santé*, or medical practitioner of an inferior class, educated in the provincial schools, and confined in his practice to the department he selects, costs 848 fr. There are in France three Faculties of Medicine. That of Paris, has 6 Honorary Professors, 27 Professors, and 26 *agrégés* or Assistant Professors; the number of doctors admitted from 1798 to 1867 inclusive was 17,190—282 having been admitted in 1867.

The total number of Doctors practising in Paris is 1567, to which are to be added

295 *officiers de santé* and 547 *pharmaciens*. As exhibiting the great difference which prevails in France as to obstetrical practice, as compared with this country, we may observe that the list of licensed midwives given amounts to the formidable number of 764. It is to be recollected, however, that the law compels these women to call in a Doctor of Medicine on the necessity arising of any instrumental interference. . . . . *Ibid.*

At the Annual Congress of German Naturalists and Physicians, in Berlin, Dr. Jürgensen, of Kiel, communicated his observations on the administration of quinine in febrile diseases, saying that this drug had the power of lowering the fever heat, and that this was done by the agency of the nervous system. Dr. Binz, of Bonn, spoke on the antiseptic effects of quinine, and maintained that the drug had no direct effect on the nervous system, but altered the composition of the blood, and that its nervine effects were only secondary.—*Ibid.*

*Treatment of Sea-sickness.*—M. le Coniat, a medical officer of the French Marine attached to the service of the Transatlantic mail packets, states that, after trying the usual remedies, he has since 1865 employed faradisation of the epigastrium in combination with an application of a solution of the sulphate of atropine (two or three centigrammes to 50 grammes), and that this means has proved successful in the great majority of several hundred cases of both sexes in which it has been tried. He thinks that during the first day the vomiting should be allowed to have its free course. He says that he has only met with five cases of abortion during his thirty-eight crossings, and that, in this, opium is just as useful as it is useless in sea-sickness. Women usually, in these voyages, have their menstrual periods hastened forwards by some days, and some even by two or three weeks. Others, again, suffer from genetic excitement, for which the bromide of potassium may be given.—*Ibid.* from *Archives de Méd. Navale*, November.

THERE were 108 deaths in Providence, R. I., during the month of January. Just one third of all the deaths in the month, in the whole city, were in the First Ward, and one third were from scarlatina. After an almost entire absence of mortality from scarlatina for two years, it began to be prevalent early in 1868. The epidemic will undoubtedly spread through the city, growing less severe in warm weather.

## Medical Miscellany.

WE have received from Dr. Toner, of Washington, a notice of the "Dedication of the Hall of the Medical Society of the District of Columbia." We make the following extracts:—

"On Wednesday evening, the new hall of the Medical Society of the District of Columbia was dedicated with appropriate ceremonies. The hall, which has just been completed, is located on the south side of F Street, west of Tenth Street, and is one of the finest in the city. The building is three stories high, with a handsome pressed-brick front. The first story embraces two very fine stores, with large plate-glass windows, and the third story is divided into lodging rooms, connecting only with the adjoining building on Tenth St. But the main feature—that for which the building was put up—is the hall, on the second floor, which fronts 46 feet on F Street, with a width of 36 feet; and adjoining it on the rear are a committee room, 14 by 23, and a library room, 18 by 20 feet. The hall is reached by a commodious stairway and passage, and the entire building is completed with all the improvements modern art could suggest.

"Dr. Wm. P. Johnston was introduced to the audience as the representative of the building committee.

"The objects of the Society in creating this building, he said, were six:—

- "1. The advancement of medical science.
- "2. The cultivation of a taste for medical literature.
- "3. The establishment of more social and fraternal feeling among its members.
- "4. The promotion of that strict morality which our vocation inculcates, and the development of that exemplary and high-toned professional character to which the medical man should ever seek to attain.

"5. The establishment, under the direction of this Society, of a dispensary for the city of Washington.

"6. The accomplishment of the great end for which the medical art is cultivated, which is to secure in the best possible way the interest of the public by raising the standard of medical learning, and by cultivating those graces and ornaments which render the medical man most acceptable and useful in his relations to the public."

Dr. J. M. Toner, the librarian, in course of some extended and instructive remarks, on behalf of public professional libraries, said:—

"Philadelphia has three medical libraries, and the combined number of volumes is about 55,000. The oldest, the Pennsylvania Hospital Library, was founded in 1762, and has now over 30,000 volumes, including pamphlets. The College of Physicians, so richly endowed a few years ago by Dr. Thomas D. Mutter, has nearly 20,000 volumes, including pamphlets, and is the most complete working medical library in our country."

Dr. T. adds, in a private note to us:—"I suspect that we are the first Society without some bequest that has expended so much for its comfort and convenience, and for the benefit of future

generations of physicians. The whole outlay will be about \$40,000."

WE learn from the *Union Médicale* that at the election on Monday, the 4th of January, of a member at large of the Academy of Sciences, in the place of M. Delessert, the friends of M. Ricord were disappointed. It was M. Duméril the younger who obtained the majority of votes.

THE sad announcement comes from Vienna, through the *Union Médicale*, that Professor Skoda is affected with an organic disease which threatens his life.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10 A.M., Massachusetts General Hospital Surgical Visit. 11 A.M., OPERATIONS.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10 A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11 A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

MR. EDITOR,—In the article on Cutaneous Horns of the Eyelid, in this week's issue, omission is made of a case reported to the Pathological Society of London, Oct. 21st, 1862, by Mr. Canton. This horn was removed by him from the upper lid of a woman aged 70. Its dimensions are not stated. HENRY L. SHAW.

ERRATUM.—In our last issue, page 11, line 5th, for "there" read *here*.

TO CORRESPONDENTS.—The following communications have been received:—Two Cases in Ophthalmic Practice—Atropine in its Physiological Action—Disease of the Supra-renal Capsules—Two Cases of Paralysis of Intrinsic Muscles of the Larynx.

BOOKS AND PAMPHLETS RECEIVED.—Pennsylvania Hospital Reports. Vol. II. 1869. Philadelphia: Lindsay & Blakiston.—A History of the Medical Department of the University of Pennsylvania from its foundation in 1765. By Joseph Carson, M.D. Philadelphia: Lindsay & Blakiston.—Treatise on Diseases of the Ear, including the Anatomy of the Organ. By Anton von Troltsch, M.D., Professor in the University of Warzburg, Bavaria. Translated and Edited by D. B. St. John Roosa, M.A., M.D. New York: Wm. Wood & Co.—Compendium of Percussion and Auscultation. By Austin Flint, M.D. New York: Wm. Wood & Co.—On the Microscope in the Diagnosis and Treatment of Sterility. By J. Marion Sims, M.D., New York.

DEATHS IN BOSTON for the week ending Saturday noon, February 6th, 105. Males, 54—Females, 51.—Accident, 1—anæmia, 1—congestion of the brain, 3—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 3—burns, 1—cancer, 2—cholera infantum, 1—cholera morbus, 1—consumption, 20—convulsions, 2—croup, 2—cyanosis, 1—debility, 1—diarrhoea, 1—diphtheria, 4—dropsy, 1—dropsy of the brain, 5—eczema, 1—scarlet fever, 13—typhoid fever, 1—disease of the heart, 2—infantile disease, 7—intemperance, 1—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 10—old age, 2—paralysis, 1—premature birth, 1—peritonitis, 1—pharyngitis, 1—puerperal disease, 1—scalded, 1—unknown, 4.

Under 5 years of age, 43—between 5 and 20 years, 20—between 20 and 40 years, 17—between 40 and 60 years, 12—above 60 years, 13. Born in the United States, 75—Ireland, 21—other places, 9.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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## Original Communications.

### CASE OF MONSTROSITY—(SIREN).

By J. B. S. JACKSON, M.D.

THIS form of monstrosity is characterized by a fusion, and inversion, or turning backward, of the lower extremities, an absence of any distinct parts, externally, of a foot, a fusion of the lower portion of the pelvis, and a great deficiency of the pelvic organs; the head and upper extremities being well formed.

In the present specimen, which was a typical one, the lower extremities tapered almost to a point from the trunk, and in consequence, perhaps, of the inversion were curved gradually forward. At the extremity was a soft and quite movable appendage,  $\frac{3}{4}$  of an inch in length and  $\frac{1}{4}$  of an inch in diameter. This bore some resemblance to a toe, and on dissection three cartilages were found. The leg was about  $1\frac{1}{4}$  inch in length, and the thigh  $3\frac{1}{4}$  inches; the femur being evidently quite broad at each extremity, and showing that there was a fusion of two extremities. At the hip-joint there was considerable motion, but less at the knee. Two patellæ distinctly felt at the back of the joint. No appearance of anus, nor of genital organs. Over the very lower extremity of the spine was a fleshy and somewhat irregular excrescence, about as large as the top of the finger. The lower part of the thorax, upon the left side, was contracted, and in connection with the internal malformations; and, otherwise, the fetus was externally well formed. Its weight was 2 lbs. 15½ oz. Length from vertex to tip of extremity, along the back, and following the curve, 16 inches; and from the vertex to the navel, 8¾ inches.

On dissection, two days after its birth, the following appearances were found:—

Diaphragm wanting upon the left side, but perfect upon the right. A strong muscular band, however, passed in front of the lower part of the œsophagus and towards the left side. The stomach and

spleen were thus allowed to pass up into the left side of the thorax, and the heart was pushed entirely into the right side.

Right lung sufficiently well; but the left consisted of a single lobe, which was smaller than any one upon the other side.

An upper vena cava entered the heart as usual; but upon the left side the great veins formed a separate trunk that opened into the left auricle. The foramen ovale was irregularly developed; there being one large opening toward which the Eustachian valve directed the blood, and a second and rather smaller opening just below it. This last was in a thin membrane, such as is usually seen below the foramen ovale; and the two openings were separated by a muscular band. The two ventricles communicated, and otherwise the heart was well formed. A second vena cava I have met with several times in monstrosities (see this JOURNAL, March 17, 1864), and once I think it must have existed in an adult who was examined at the Massachusetts General Hospital a few years ago. In this last case, a funnel-shaped cavity led off from the auricle toward the left side and back of the heart; and there, being then much reduced in size, it was accidentally cut off.

The rectum terminated in a cul de sac in or very near to the pelvis, was filled with meconium, and gradually dilated towards the last, so as finally to measure about  $1\frac{1}{2}$  inch in diameter. The large intestine was much contracted, and pretty closely connected by a delicate tissue with the under surface of the liver. Otherwise the alimentary canal was normal; the stomach being in no way remarkable, notwithstanding its unusual situation.

The right lobe of the liver was well, but the left was made up of several small and irregular lobes. The gall-bladder was quite small, but the ducts external to it were properly distributed.

Pancreas externally normal.

The spleen consisted of three distinct masses, each about  $\frac{1}{2}$  an inch to  $\frac{3}{4}$  of an inch in diameter, and two others about the size of a pea.

Upon the right side there was a renal capsule, of an oval form, and  $1\frac{1}{2}$  inch in length; but no kidney. This is one of the cases that have been observed several times here, as well as elsewhere, and that show the independence of these organs. Upon the left side the renal capsule was smaller than the other. There was also a kidney that was small for the size of the fœtus, and that contained numerous cysts. I have met with cysts several times in malformed subjects, and am inclined to think that, when we find the organs completely transformed into cysts in adults, and generally without symptoms, the disease may sometimes have been congenital. I have examined one case at least that must have been so; but in this one there were symptoms, and they seemed to indicate the fact of the congenital formation. On incision of the organ, in the present case, there was found no appearance of a pelvis. The ureter, which was small above and large below, was impervious, and extended as far as the uterus.

The uterus, which was in two distinct portions, and far apart, appeared very prominently above the serous surface, as two red, fleshy, ovoid bodies, each about  $\frac{1}{2}$  of an inch in length. Each had its Fallopian tube and ovary perfectly well developed; and the left horn, at least, had its round ligament. Below the serous surface, and intimately connected with each horn, was a distinct, whitish, fleshy, somewhat ovoid body, about  $\frac{1}{2}$  of an inch in length, and that, it was thought, might be the vagina. These last were quite impervious; but both horns of the uterus showed a distinct cavity.

The bladder was wanting.

The aorta gave off two extremely small iliac arteries, and was then continued straight along the median line, across the pelvis and up to the umbilicus; two vessels only being seen upon the cut surface of the cord.

The skeleton of the pelvis and lower extremities having been prepared, the following appearances were seen. The ilia were normal. The ischia were intimately fused throughout—the bodies as well as the rami; and, in consequence of the large development of substance, the ilia were not unusually approximated. The outlet of the pelvis was thus closed by a thick mass of what would have been bone, if possible; though between the ischia and the lower part of the spine there was a space of considerable size that was filled with connect-

ive tissue and fat. The pubic bones were depressed and much elongated, and the symphysis was very prominent and largely developed. The obturator foramina were closely approximated, as in Cruveilhier's case (*Anat. Path.*, liv. 40, pl. 6, fig. 6), and only separated above by a strong fibrous band that ran from the fused ischia to the inside of the symphysis pubis, and below by a little connective tissue and fat. The sacrum was very irregularly developed and turned directly backward. The femur was  $3\frac{1}{4}$  inches in length and quite large; convex posteriorly and flattened anteriorly, with pretty well marked edges, and no appearance of a twist, as in one of Cruveilhier's figures. The great trochanter was very broad, and there were two well-developed heads in distinct cavities, and nearly  $\frac{1}{2}$  of an inch apart. Viewed in relation to the iliac and pubic bones, the heads seemed to be in very proper position. Inferiorly there were two large condyles, which must be regarded as internal condyles, but there was no appearance of an intervening one. Upon the back of the knee-joint were two well-developed patellæ, with their ligaments; and these were inserted into the tibia, which was  $1\frac{1}{4}$  inches in length, and tapered down regularly and suddenly to unite with the three cartilages above mentioned. The breadth of the femur across the two heads was  $1\frac{1}{2}$  inch, and across the condyles  $1\frac{1}{4}$  inch.

The muscles about the thigh were most of them very distinctly made out by their origins and insertions, and were well developed:—the *psaos magnus*, *iliacus internus* and *glutæus maximus*; the *sartorius*, *tensor vaginæ femoris*, three adductors, *rectus vasti*, *semi-tendinosus* and *biceps*. The *glutæus maximus* and *medius*, *gracilis* and *semi-membranosus* were wanting. The adductors were inserted mostly into the line that separated the convex from the flat surface of the femur, and into this last. The recti ran obliquely from the front of the pelvis to the patella. The *vasti externi* were fused, and formed a very powerful mass of muscle upon the back of the femur. Between the sacrum and ischia a considerable quantity of muscular substance was found; but the fibres seemed mostly to run in a transverse direction, and none of the small muscles that run from the pelvis to the great trochanter were made out. Below the knee no muscular fibres were found.

The excrescence over the lower part of the spine was attached to this last by a loose connective tissue, and a considerable



quantity of muscular fibre that arose from the sacrum; but it seemed to have no connection with the spinal membranes.

The case occurred during the month of December, in the practice of Dr. H. P. Hemenway, of Somerville, who very kindly presented the fetus to the Museum of the Massachusetts Medical College. The mother was 24 years of age, of a nervous temperament, and had previously had one well-formed child and one abortion. In the present case, the child was carried to the full period, though its size would not indicate it. The motions had been very feeble, and were described by her as a fluttering sensation. Quantity of liquor amnii exceedingly small, and the labor was otherwise quite natural. The child gasped for about fifteen or twenty minutes; and, meanwhile, the heart was felt beating strongly upon the right side. The cord was short, small, and had an opaque, diseased look. The placenta was thin, and only three or four inches in diameter; and the vessels were small.

Cruveilhier (*Anat. Path.*, liv. xxxiii.) has given an admirable figure of a specimen of this variety of monstrosity, and of the osteology, and also of the osteology of another case in which the fusion was much less complete. Specimens of the kind are to be seen in European cabinets; but I have not heard of a case here, nor have I happened to see a report of one in our medical journals. Perhaps this remark may lead to the publication of other cases that must have occurred. With regard to the frequency of their occurrence, St. Hilaire states in his general history of the Sirens, as they were formerly called, that only about twelve cases are known (*Anomalies de l'Organization*, vol. ii., p. 250); but I think that he must have underrated the number, as I have seen no less than five in the European cabinets, besides a model of a sixth, and other specimens in which the fusion is less complete than in the Siren.

## TWO CASES IN OPHTHALMIC PRACTICE.

By G. HAY, M.D.

I.—*Suppurative Inflammation of the Cornea, with successful result after Iridectomy.*—The operation of iridectomy is a prominent feature of modern ophthalmic practice. Among its many uses it has been found of advantage in certain cases of disease of the cornea. As an instance of this use of the operation the following case is reported:

Oct. 28th, 1867.—Mrs. X., of small stat-

ure, aged 25, with one child some 5 years old. Has had trouble in the left eye for about two weeks. The vision of this eye is much diminished. The cornea is somewhat opaque in the middle. There has been considerable pain in the region of the eye. The pupil being moderately dilated, a continuance of the collyrium previously used was advised on the supposition that it contained a preparation of atropia. The patient was also advised to take some quinine, to use an opiate lotion and to wear plane blue glasses.

Oct. 31st.—For collyrium of 28th inst., substitute sulphate of atropia gr. ss. to water f3i. The pupil dilates well after instillation of this solution.

Nov. 5th.—Has had considerable pain. There is a very slender, light-colored line along the lower edge of the cornea (in the anterior chamber), an appearance which indicates the coming of pus in the anterior chamber. Advised to take some morphine for the pain.

Nov. 12th.—Pus in anterior chamber quite evident, rising to the height of about a line. Pain less. Pupil dilated. Has applied a large blister to back of neck. Discontinue quinine of Oct. 28th.

R. Ferri et quin. cit. ʒi.

Aq. f3iv. M. Dose, f3i.

Nov. 16th.—Pus increased. Eye comparatively easy till to-day. To-day more pain.

Nov. 17th.—Pus movable. With the assistance of Dr. Robert Willard ether was administered. Paracentesis corneæ performed. A small quantity of pus escaped through the puncture.

Nov. 18th.—Had a good night; free from pain. Anterior chamber reestablished. Pupil moderately dilated. Some pus in anterior chamber. Discontinue ferri et quin. cit. Substitute potassii iodid. ʒi. to liquid f3iv. Dose f3i.

Nov. 20th.—No pain of consequence. Eye looks better. The pus appears to be less.

Nov. 22d.—Slept well last night, free from pain. Cornea looks as if containing a deposit of pus. Some circum-corneal injection.

Nov. 25th.—Pus in anterior chamber continues; not as much as before paracentesis. The cornea looks as if burrowed. Discontinue potassii iodid.

R. Liq. ferri iodidi gtt. x. ter die.

Nov. 27th.—Light is disagreeable; eye waters when examined; pus increased in anterior chamber; some pain; vision very poor.

Nov. 28th.—With the assistance of Dr.

B. J. Jeffries ether was administered and iridectomy upwards and inwards performed. After the operation the middle of the cornea over an area of from two to three lines in diameter, presented an appearance of honey-combed purulent infiltration, apparently nearer the inner surface.

Nov. 29th.—Comfortable. •

Dec. 1st.—Some pain—light disagreeable—eye irritable.

Dec. 3d.—Had a good night. No pain. Eye looks better. No movable pus noticed. Infiltration of cornea apparent.

Dec. 6th.—Sight improving. Pus absorbed. Middle of cornea still infiltrated. The eye very sensitive to light. Use the atropine collyrium only every second day.

Dec. 14th.—No pain. Sees more. Eye still sensitive to light. Discontinue atropine and iron. Resume potass. iodid. *R.* Borax gr. ss. to water  $\mathfrak{z}$ i. as collyrium. An ointment containing belladonna to the brow. May walk out.

Dec. 21st.—Better. Borax collyrium only once daily. The ointment only every second evening.

Jan. 3d.—Very much better. Continue treatment.

Jan. 22d.—No pain. Redness gone. The opacity almost gone. Vision pretty good. Health good. Treatment discontinued.

Thus in about three months the inflammatory changes had nearly come to an end, the eye being left in a good condition. It cannot perhaps be *proved* that an equally good result might not have been obtained without the operations. On the other hand, improvement followed upon each operation, though rather slowly for the five days immediately succeeding the iridectomy; and a longer continuance of the disease would very likely have caused permanent opacity of the cornea or serious changes in the iris and lens, or perhaps the morbid processes would even have extended to the deeper parts of the eye. We should therefore consider that the preservation of the eye was due to the interference of art.

II.—*Enucleation of the Eyeball for Intra-ocular Bleeding and Pain following an Iridectomy.*—Mr. J., American, aged 45, farmer, entered the Infirmary July 27th, 1868. *Left eye.* The sight had been failing for six years, with pain at times. For the past two months the pain has been severe, and for the last five weeks has prevented him from working. No cause was assigned for the disease. Patient formerly suffered much from bleeding from the nose, but less during the last few years.

July 27th.—The eye is of normal size; conjunctiva only slightly injected; cornea and aqueous clear; pupil not remarkable. Lens opaque. Iris tremulous. Tension above normal. Sight gone. It was determined to try iridectomy for the relief of the pain. This was done about noon. Shortly after there was severe pain and the bandage became stained with blood. At 4, P.M., on moving the bandage, the flaccid lens in its capsule was found outside of the eyeball, near the palpebral opening, having been forced through the moderate-sized incision of the iridectomy. In the incision was a small clot of blood. The pain and bleeding continuing, it was determined, after consultation, to enucleate. Enucleation was therefore performed; but as the bleeding—instead of ceasing, as is usual—continued rather freely, the cavity was plugged with sponge, and a tight bandage was applied. On the 29th the sponges were taken out; but owing to a return of the bleeding, the cavity was again plugged. The pressure, however, being disagreeable, was on August 1st diminished.

Aug. 3d.—As the tissues of the lids were much swollen, and smelt badly, and the bleeding still continued, the sponges were taken out. Dr. Hodges was requested to see the patient. In accordance with his advice, a single thickness of cotton cloth wet with iced-water was applied. The bleeding then diminished, but a slight oozing continued.

Aug. 4th.—As a clot of the size of a walnut had formed, which projected from between the swollen lids, and a slight trickling continued, Dr. Hodges searched the cavity, under ether, for bleeding vessels, but found none of sufficient size to tie. The surface of the cavity was sponged clean for about half an hour, and then iced water was applied as before. After this the bleeding stopped, the swelling diminished, and the patient rapidly improved.

Aug. 10th.—Discharged convalescent.

The eyeball, examined the day after the enucleation, was found filled with a clot of blood. After removing the most of the clot the choroid was seen almost entirely separated from the sclerotic and pressed together, passing somewhat like a tunnel from the papilla to the anterior part of the eye.

In consideration of the recent pain suffered we were inclined to think that intra-ocular hæmorrhage had been taking place for some time before the operation; but on the other hand it might be supposed that it was a case of separation of the retina with cataract, and that the hæmorrhage was only

a consequence of the operation in an eye predisposed to it by disease. Although the tension of the eye was above normal, the general aspect was not glaucomatous.

### EXTRA-LARYNGEAL OPERATION FOR THE REMOVAL OF GROWTHS UPON THE VOCAL CHORDS.

By E. CUTTER, M.D., Boston.

THE patient, Mr. Albert Litch, of Cambridgeport, was born in 1814; he is a large, well-developed, muscular man, of dark complexion and nervous temperament, and has enjoyed excellent health during most of his life. There has been no cancer in the family, except in the case of a paternal aunt who died at the age of 80. His mother is still living, aged 79; his father was a strong man, and died of ague. He was engaged with Mr. John A. Whipple in introducing photography in the United States, and in 1846 he was injured by overturning a large jar of bromine upon his face and hands, the vapor from which strangled him and almost deprived him of life. Since then he has been actively engaged in mercantile pursuits. He attributes his subsequent laryngeal affection to the inveterate smoking of tobacco, which he used to buy by the barrel for his own use. He "supposes that he has colored more pipes than any man in Boston."

In April, 1864, he was attacked with hoarseness, though he is not aware of having taken cold. There was no venereal taint. His case was submitted to various physicians; one of whom gave him some preparation of squill, saying that the disease might or might not pass away; while another, after two months, dismissed him as among the "opprobria medicorum." Another gave him iodine to inhale, which did no good. Subsequently he went to New Jersey, to try the effect of a change of climate, and two physicians there diagnosed a weakness of the vocal chords. He received no benefit; and on his return home he consulted one of our oldest and best known physicians, who told him "to let doctors of medicine alone."

After this for about a year he did nothing but consult almost every physician with whom he chanced to come in contact. He was completely discouraged, and was, he says, disgusted with the whole medical faculty. Naturally he turned to mediums, clairvoyants, astrologers, and other irregular practitioners, none of whom succeeded in curing him or in making a true diagnosis.

Meantime he had sleepless nights; he lost flesh, strength and energy, and became short of breath upon exertion. He became indifferent to life, and was tempted to suicide. He said that he felt "like a man out in the open sea in a boat, without oars or rudder, expecting every moment to be capsize."

In April, 1867, he was brought to the writer's notice by Dr. John Hart, of this city. A laryngoscopic examination revealed a sessile tumor, occupying the whole of the upper surface and free edges of the left vocal band and a small portion of the right vocal band near the thyroid insertion.

The effect upon his mind of a correct diagnosis was wonderful. The hope of relief made him feel better immediately; and he became able to eat and sleep.

After the diagnosis had been confirmed by repeated examinations, at intervals of days, the patient was told that relief was to be afforded only by mechanical removal; that there were two methods of operating, one from the inside and the other from the outside; while the non-pedunculated character of the new growth and its situation upon the upper and free edge of the band and at the thyroid insertion favored the removal by thyrotomy. Before resorting to the latter process, attempts were made to remove a portion by the month, with little success. Having been assured that by opening the larynx the work of removal could be effected safely, surely, and thoroughly, the patient then entrusted the whole matter to his adviser.

Sept. 26th, 1867, at 2.30 P.M., the extra-laryngeal operation was performed as follows, in the presence of Drs. Louis Elsberg, of New York City, E. A. Perkins, of Boston, Allen, of Cambridgeport, S. W. Abbott, of Woburn, and Mr. Shurtleff, of Boston. The patient was seated in a common old-fashioned wooden armed chair, with a straight back. His chin was shaved and his person in undress. He soon came under the ether, which rendered him violent and pugilistic. When anesthetized he slipped down in his chair, and at Dr. Abbott's suggestion he was secured by a leather strap buckled round his chair. Pulse 80, full and strong. An incision was made with a scalpel in the median line, from the hyoid bone to the third tracheal ring, through the skin, fat and fascia. The hyothyroid membrane, the thyroid cartilage, the thyro-eroid membrane and the cricoid cartilage were denuded. During the dissection there was some embarrassment from the fact that the larynx was in constant motion from con-

tinual efforts to swallow. The denudation measured about two and one half inches in length. The thyroid cartilage was found to be ossified. After the external hæmorrhage had ceased, the lower blade of a bone forceps was entered through the crico-thyroid membrane, exactly in the median line, till it was two-thirds concealed. Simply closing the forceps with force sufficed to sever it cleanly in the middle. The section through the soft tissues was completed with the scissors. The severed parts were held apart by two-tined hooks, one time above and one time below the vocal chord. Fortunately the up and down movements here ceased. The new growth was completely revealed. On the left chord it appeared as a minute lobal excrescence, occupying the whole inner edge like a fringe, and the lower or tracheal surface. On the right vocal chord the growth was similar, but close to the thyroid insertion. It proved to be fragile. The whole growth was removed by the scissors, leaving the surface clean and smooth. The surface of denudation was sponged and carefully examined by each gentleman present, in succession, until all were satisfied as to the completeness of the removal. The site was then cauterized with the acid nitrate of mercury.

As soon as the patient passed into the semi-conscious state of recovery he again became violent. The most remarkable feature of the violence was the completeness of his prostration. He spoke in a loud, coarse, resounding voice, resembling that of a sea-captain in a storm. This phonation lasted for several hours. The return to complete sensibility was retarded by the accumulation of blood and mucus in the mouth, which ran down into the trachea and out of the artificial opening; it was also accompanied by profuse sweating and some flagging of the pulse. The wound was closed by five sutures, through the skin only. The patient was then led to his bed in an adjoining chamber. He was faint and chilly, but his pulse was 80, regular and full. Tr. camphoræ and aqua ammoniæ were given, and hot water was placed at his feet. Vomiting then ensued, a large amount of blood mingled with mucus was evacuated, and the patient assumed a more natural appearance.

The night passed without any serious difficulty. The operator slept in the house, but was not called on to do anything. In the morning the report was that he had slept a few hours, but was hot, and his throat was very sore. The pulse was 80, the skin cool, air occasionally passing

through the opening. Voice alternating between a whisper and hoarseness or gruffness. Morsels of ice were freely used in the mouth. The air was kept moist by evaporating water on a stove, and by hot flatirons thrown into firkins containing water. Mutton broth and milk for diet. Tinct. veratri viridis gtt. xj. once every hour, if feverish.

9.30 P.M.—Pulse 72. Skin warm. Throat sore.

28th, 7 A.M.—Pulse 72. Skin cool. Dysphagia. Rather restless through night. No medicine given. Vaporization continued.

29th, 2.15 P.M.—Pulse 64. Wound united.

30th.—Stitches removed.

Oct. 2d.—Patient went down stairs.

5th.—All plasters removed.

8th.—Phonation coarse and clear; pulse 80.

17th.—Under the laryngoscope everything appeared normal except a slight cedematous protuberance towards the thyroid extremity of the left vocal chord.

Oct. 23d.—Throat feels sore, but the larynx looks very well inside, the vocal chords having their normal pearly sheen. There was some adhesion of the cicatrix to the trachea, which was removed by subcutaneous sections.

At the present time there is an appearance of a return of the disease on the right vocal chord.

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

DEC. 14th.—*Typhus Fever without Eruption.* Dr. BORLAND reported the case.

"The patient, a sail-maker, 37 years old, was brought from a house in Salem Street to the City Hospital, on the afternoon of Dec. 4th. He was in a semi-comatose condition, and the only facts that could be obtained were, that he was in the sixth day of his sickness; that there was no sickness in the house from whence he came, and that his room was very small and badly ventilated. When admitted, he was recorded as speechless; not paralyzed; tongue, very dry and brown, could be protruded a little way, in a straight line; skin dry; pulse 132, small, weak; resp. 32.

"Dec. 5th.—I saw him for the first time,

and found him conscious, but speechless; his face had a peculiar expression of a heavy, dull, passive indifference; eyelids and mouth open; the countenance generally flushed with a dusky reddish-brown hue; the tongue was dry and brown, and there was some sordes on the lips and teeth; the conjunctivæ were, however, not injected. The abdomen was somewhat shrunken, not tender. Skin was generally dry throughout. There was no eruption. The urine was passed involuntarily, but enough was collected for examination. It was dark colored; specific gravity 1018; the chlorides wholly absent; there was no albumen. The physical examination of the backs showed harsh respiration, but of feeble character; no râles. Percussion normal. In the afternoon he had two severe clonic convulsions, affecting chiefly the upper half of the body. His pulse varied from 124 in the morning to 132 in the evening. Temperature  $99.5^{\circ}$  to  $103.5^{\circ}$ . Resp. 32. He was ordered beef-tea and brandy, alternately, every hour, and five grains of carbonate of ammonia in camphor mixture every two hours.

“6th.—The general condition of the patient was much as described, excepting the lowering of all the vital signs. The pulse ranged from 108 to 124, and irregular in its rate. Temperature from  $98.5^{\circ}$  to  $99.5^{\circ}$ . Respiration 24 to 28. Large ecchymoses were seen on each foot. The tongue could not be protruded. Bowels were costive, and were moved by means of enemata, and he was sponged all over with warm alcohol and water.

7th.—The patient appeared slightly better. His tongue was a little sticky, showing a slight degree of moisture. Pulse 132 in the morning, 120 in the evening; temperature  $100.5^{\circ}$  to  $102^{\circ}$ .

8th.—Pulse 120; temperature  $103^{\circ}$  in the morning,  $102.5^{\circ}$  in the evening. Tongue again perfectly dry and brown; the patient could protrude it half an inch. The respiratory murmur in both backs was good. In the afternoon, he had three loose dejections of greenish-brown feces, and at 10 P.M., he began to show indications of failing vitality, and he died at 12 M. on the 9th of December, it being the eleventh day of his disease.

The fact that was most evident, that the man was suffering from the depressing influences of some severe blood-poison, together with the impossibility of finding anything like organic disease to account for his condition, strongly suggested to my mind the fact of the disease being typhus fever. Yet

the comparative rarity of this disease in the community; the absence of the injection of the conjunctivæ, of the peculiar “rotten straw” smell of typhus and of the eruption kept me in a state of uncertainty as to the true diagnosis, until it was verified by the autopsy.

The argument in favor of typhus was in the following facts:

The physiognomy of the patient, presenting, as he did, the nearly true facies typhosa, the injection of the conjunctivæ alone being absent. The pupils were never dilated, although they did not present the pin-hole pupil which Dr. Graves considered as a fatal symptom.

In the dryness of the skin, as is commonly the case after the third day of the disease.

In the absence of sudamina, and the presence of ecchymoses, as recorded on Dec. 6th.

In the temperature, which in typhus, as a rule, does not exceed  $103$  to  $104$ , and after the end of the first week is generally gradually lowered, and in extreme prostration even rates lower than the normal standard.

In the correspondence of the respirations with the law of typhus, not being much heightened till the second week, and in the aphonia, our patient either being speechless or only speaking in monosyllabic whispers.

In the peculiar dry brown tongue, and in the absence of meteorism, or gurgling; with the concave abdomen; and the coming on of diarrhœa of dark greenish brown discharges.

In the dark colored urine of the specific quantity of 1018, with absence of the chlorides.

In the general prostration of the patient, with the tendency to dorsal decubitus, in the occurrence of convulsions preceding death, and in the death itself, occurring on the eleventh day of disease.

The autopsy was made twenty-four hours after death.

The cadaveric rigidity was not remarkable, but there was much livid discoloration of the dependent parts of the integuments. The muscles were everywhere of a very unusually dark color.

Head. There was a marked congestion of the cerebral membranes, and also of the choroid plexuses. The larger vessels were filled with blood, but there was no fine injection. The subarachnoid fluid was largely increased—it had a somewhat opalescent look, but it contained no lymph, and ran off clearly and transparently on raising the confining membrane. The substance of the cerebrum and cerebellum was perfectly

healthy, presenting no trace of inflammatory action.

*Thorax.* The blood was in a very fluid condition, looking when in bulk very dark; when dropped out on a white surface, it looked of a thinner quality than usual. In the left ventricle there was a small, soft, friable white clot. The heart was healthy—paler than usual, and without the staining of its lining membranes which is sometimes seen in typhus. The pleuras showed no trace of recent inflammation. Bronchi, healthy. The lungs were healthy, excepting for the condition of hypostatic congestion. The two lungs were about equally affected. The consolidation was greatest at the posterior part; was of a dark purplish color, extending two or three inches into the substance of the lung, was not bounded by defined margin; had a smooth surface when cut, and on pressure exuded a dark non-aërated serum.

*Abdomen.* The intestinal canal was healthy throughout, with this exception. The lower two feet of the ileum were congested, and throughout the lower six feet of the ileum the Peyer's patches partook of the same congestion, so as to be visible to the eye. They, however, were in no ways thickened, stiffened, elevated, or perceptible to the finger, nor was their mucous membrane in any way softened. The bowel at this part contained a considerable amount of greenish fecal matter. Mesenteric glands healthy. The abdominal viscera were generally in a hyperemic condition, all deeply reddened. The liver was of a normal size. The spleen of double its natural size. The left kidney dark red, much larger than the right, which was of a natural size. There was no other diseased condition detected.

I have considered the autopsy as showing the nature of the disease:—From the absence of inflammation of the brain or its membranes, from the hyperæmia of the cerebral membranes, and increased amount of intra-cranial fluid; from the fluid condition of the blood, the pulmonary hypostasis, and the hyperæmic condition of the abdominal viscera which, had the patient lived a few days longer, would probably have induced softening.

INTERNATIONAL MEDICAL CONGRESS.—Professors Palasciano, of Naples, and Panteleoni, of Rome, have issued proposals for holding an International Medical Congress at Florence in September, 1869. They have laid down the statutes for its management and a programme of the questions to be discussed.—*Med. Times & Gazette.*

## Bibliographical Notices.

*Essentials of the Principles and Practice of Medicine. A Handbook for Students and Practitioners.* By HENRY HARTSHORNE, M.D., Professor of Hygiene in the University of Pennsylvania, &c. &c. Second edition, revised and improved. Philadelphia: Henry C. Lea. 1869. Pp. 452.

THIS work seems to be carefully and conscientiously edited. The hydraulic press, however, applied to reduce a book to one-fourth its proper size, is unfortunately too apt to squeeze it dry of flavor, excepting the flavor characteristic of dictionaries. To read such compends continuously, is to violate the laws of mental hygiene, while a close examination is apt to show that important facts are dropped, and important subjects neglected. For instance, in treating of pneumonia, the author omits to describe the "jacket poultice." In rheumatism, he represents Dr. Davies as using *small* blisters, intended to produce moderate vesication only, applied to the different joints in succession—instead of *large* blisters *simultaneously* applied. In treating croup, he seems to be unaware of the paramount value of a steam-atmosphere, before tracheotomy is performed—although he speaks of the efficacy of the vapor of *lime-water* as a solvent of croup-membrane. He has abandoned tracheotomy in his own practice. The newer additions are valuable and useful.

D. F. L.

## Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 18, 1869.

### OVARIOTOMY—NOTE FROM MR. T. SPENCER WELLS.

WE had set aside the following extract from the *London Medical Times and Gazette* until such time as we should receive from Mr. T. Spencer Wells a reply to a note addressed to him by us. We wrote to that gentleman asking to be informed who was entitled to the honor of having invented the clamp used in his operations. Through the kindness of Mr. Wells, his reply has come promptly to hand; and we now give it, immediately succeeding the extract referred to.

In an article in the London *Medical Times and Gazette*, Mr. Wells, speaking October 28th, 1868, says:—

"Since October last I have completed the operation of ovariectomy in this hospital in thirty-six cases, besides one case in which I performed the operation successfully for the second time on the same patient. Of the thirty-six women, thirty-one recovered and five died; and it is a remarkable fact that in every case in which the pedicle was long enough for me to use the clamp the patient recovered. There were thirty of these cases—thirty clamp cases in one year without a single death."

{ 3 UPPER GROSVENOR STREET,  
London, 25 January, 1869.

DEAR SIR,—The credit of the introduction of the use of the clamp in ovariectomy is certainly due to Mr. Hutchinson, Surgeon to the London Hospital. He first used one in 1858. It was simply the common *calliper* of carpenters which he used and left applied, handles and all. Then the handles were made movable, so that they could be taken off as soon as the clamp was fixed. Then I made the blades parallel, and did without handles. But I afterwards returned towards the original form of clamp, altering the joint and the form of the opposing surfaces of the clamp until I arrived at that which I now use. You may see it figured in Druitt's *Vade Mecum*, ninth edition, 1865, page 541. . . . I have now completed 300 cases. Of the

1st 100 cases 64 recovered and 34 died.

2d 100 " 72 " " 28 "

3d 100 " 77 " " 23 "

300

213

85

A general mortality of 28 per cent., but it is very encouraging to note that the mortality has been steadily diminishing with increasing experience.

Yours very truly,

T. SPENCER WELLS.

THE *New York Medical Journal* for January has an article "On the Microscope as an Aid in the Diagnosis and Treatment of Sterility," by J. Marion Sims, M.D., New York. The paper was read at the meeting of the Medical Society of the County of New York, Dec. 7, 1868.

Previously to the discussion of the topic contained in the above caption, Dr. Sims touches upon the question of the incision of the cervix uteri. So far as such incision

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for dysmenorrhœa is concerned, he has "nothing to recant, nothing to undo." But, when it is proposed to do this operation for sterility, without regard to the relief of physical suffering, he has a word of advice for his younger brethren. He looks upon this procedure as "one of great importance, as one of the most valuable in uterine surgery," but thinks we have too blindly followed "the example and teachings of its illustrious author, Sir James Y. Simpson." Speaking for himself, he says: "I am now sure that I have cut open the cervix uteri, perhaps scores of times, when it was both useless and unnecessary; and I know that others have done the same thing." He is confident that almost every surgeon who has performed this operation often has fallen into the same error. He begs, however, not to be misunderstood. It is for sterility that he declares the slitting of the uterine neck to be useless under certain circumstances—as where the husband is sterile. For this frank and manly avowal, we desire to accord to Dr. Sims all credit and honor.

Coming to the main question in his paper—the investigation of the cause of sterility in particular cases—he takes these positions:—1. We must be sure that we have semen with spermatozoa; 2. We must ascertain if the spermatozoa enter the utero-cervical canal; 3. We must determine whether the secretions of the canal are favorable or not to the vitality of the spermatozoa.

Dr. S. claims that with the aid of the microscope, all these questions may be easily settled. He says:—

"When I wish to examine the action of the cervical mucus upon the spermatozoa, I order sexual intercourse in the morning—the dorsal decubitus to be retained for an hour afterward; and I expect a visit from my patient four, or five, or six hours after coition. Sometimes we find spermatozoa in great abundance in the cervical canal, and not one living. (I have occasionally examined the mucus six, eight and ten minutes after coition and found all the spermatozoa dead.) Sometimes we find half of them dead; again, only about a third; again, two thirds."

Thus, then, by microscopical examination of the secretions of the vagina and cer-

vix, he ascertains whether the spermatozoa reach the cervical canal, and whether they are able to live there. If no zoöperms are found, he still knows that the spermatie fluid has entered the vagina and been retained there if he discovers in that cavity "a fluid with the characteristic seminal odor." He has never, but in two instances, "been compelled to resort to Mr. Curling's plan, of getting the man to squeeze a drop of mucus from the urethra, upon a bit of glass, immediately after sexual intercourse." Dr. S. knows many men whose seminal fluid is devoid of spermatozoa, and who therefore cannot become fathers.

"They are all strong, active men, in the prime of life, and all perform the sexual function with vigor. The very fact of their natural vigor and strong passions had been their ruin, for most of them had contracted urethritis during their early and unmarried life, and had suffered from its unlucky sequence, epididymitis. To further illustrate the necessity of the microscope in this department of surgery, I shall append a few cases drawn up as succinctly as possible."

As we once expressed an aversion to some of Dr. Sims's experiments, we think it only just to quote his defence of them, in reply to the animadversions of an English Editor. He says:—

"Now, for myself, I see no indelicacy or impropriety in taking mucus from the vagina and uterus for microscopic examination. It is no more indelicate, no more impure, than to investigate the character and properties of saliva, or bile, or urine, or feces, or pus. And where is the scientific physician, nowadays, who could or would dare to give an opinion on any obscure and complicated disease without some such investigation? To answer that question, I have only to call to the witness-stand such men as Beale, Hughes Bennett, Gull, George Harley, Sir William Jenner, Bence Jones, George Johnson, Stokes, and the immortal names of Addison and Bright; and in my own country, the great names of Alonzo Clark, Austin Flint, John T. Metcalfe, and a host of others. Opposition and ridicule are ever ready, but never yet crushed out a great truth. With the simplicity of my nature, and with the honesty of my purpose, there can be no indecency, and no sacrifice of self-respect in making any necessary physical examination whatever, if it be done with a proper sense of delicacy, and with a dig-

nified, earnest, and conscientious determination to arrive at the truth—a truth without which every step is in the dark, but with which all is as clear as the noontday's sun."

We must say, however, that we have not yet conquered our prejudices in this matter. Nevertheless, we fully recognize the enterprise, tact, and originality which have enabled Dr. Sims to rescue many a patient from a living death, and which have won for him an immense reputation.

*Unilateral Sweating of the Head* is discussed in the *Quarterly Journal of Psychological Medicine* for January, by Roberts Bartholow, M.D., of Cincinnati. The same subject has also been recently brought forward in one of the English journals.

We quote one of Dr. B.'s cases as illustrative of the affection.

"A lady of this city, aged about 40 years, of full habit, inclining to *embonpoint*, consulted me for a peculiar redness of the right side of the face and head, coming on at irregular intervals. She first observes a sensation of warmth in the part; her eye suffuses, and vision becomes dim. Making observation with a thermometer, placed in the right meatus auditorius, at my request, she ascertained that there was an actual rise of 5° F. over the temperature of the opposite side. The redness of the affected skin was quite apparent to those about her. Observing her in one of these attacks I perceived an abundant moisture break out all over the reddened surface, while the corresponding parts on the opposite side were perfectly dry. There did not appear to be any other departure from the healthy state."

Dr. Bartholow says:—

"The cases of unilateral sweating which I have thus observed, and those which I have collected from various sources, may be arranged in four classes:

"Those connected with aneurismal or other tumors in the thorax;

"Those occurring in certain neuroses, as epilepsy, progressive locomotor ataxia, &c.;

"Those connected with a peculiar stomach disorder;

"Those which seem to be independent of any alteration in the function of any organ except the affected skin.

"With regard to the cases belonging to the first class, there can now be no doubt of the correctness—in part at least—of the view entertained by Dr. Gairdner. He at-



tributes the sweating to pressure of the new formation upon the cervical sympathetic or its branches; paralysis of the vaso-motor nerves is thus induced, and an increased supply of blood is thrown into the capillaries of the sudoriparous glands. This explanation is predicated upon the remarkable experiments of Claude Bernard, who demonstrated that division of the cervical sympathetic was followed by unilateral congestion of the vessels on the same side. It is probable, however, that the result in cases of unilateral sweating of the head, connected with tumors in the chest, is not always due to *paralysis* of the fibres of the cervical sympathetic, but to irritation by pressure."

"Mr. Hutchinson has very clearly expressed his views as follows:

"Many clinical facts seem to me to concur in pointing to the sensory nerves as those of most importance in reference to trophic disturbance. At any rate, if it be not the sensory nerve-fibres themselves, it must be some others which travel in close company with them, which are the most important ones. Paralysis of the cervical vaso-motor nerve, although followed by increased supply of blood, is not productive of inflammation. Nor have we any facts in support of the idea that injuries to motor nerves cause inflammation. On the other hand, we find in reference to sensory nerves, the following facts: 1. The crop of vesicles characteristic of herpes zoster is usually mapped out most accurately by the area of distribution of some sensory nerve. 2. That when a sensory nerve, such as the first division of the fifth, is paralyzed, inflammation often follows (of the eye in the case of the fifth). 3. That when certain sensory nerves are irritated (not paralyzed), reflex inflammations often ensue. 4. That after section of mixed nerves, or of the spinal cord, the parts left without sensation often inflame."

"The facts of Dr. Prevost, however, show that irritation of a ganglion of the sympathetic is followed by elevation of temperature and increased secretion of the part to which its filaments are distributed. These experimental facts are quite in harmony with our clinical observations in unilateral sweating of the head. This disorder seems therefore to be produced by an irritation of a ganglion of the sympathetic, and probably has no relation to those trophic disturbances caused by injury of a sensory nerve. I think it is evident, then, that in the fourth class of cases, although no lesion

is discoverable, some disorder exists in one or more of the ganglia of the sympathetic."

The discussion of the merits of *Veratrum Viride* as a therapeutic agent, which has seemed to be somewhat hibernating in this vicinity for some time, has taken its place on the *tapis* abroad. Its power as an arterial sedative is well established; but it is also claimed to be beneficial in pneumonia. Does it always promote the well-being of the patient in that disease? Pneumonia, as we see it now-a-days, if unilateral, usually gets well of itself, when of course the pulse subsides to its usual rate. Does not the accelerated rate of the circulation supply a demand of the system for the aëration of the blood during the period that inflammation shuts off from activity a portion of the respiratory apparatus?

We insert here an account of a case of *Aphasia*\* which occurred in the practice of Dr. Parker, of Melrose. The case was reported at the last meeting of the Suffolk District Medical Society by the Secretary, Dr. John Homans; and obtained from him by the interposition of the assistant editor:

The patient, a clergyman, was about 52 years old at the time of his death. In March, 1867, he had motor paralysis, lasting half an hour, of the left hand and the left side of the mouth and tongue. Occasional numbness of the left hand and the left side of the tongue, during the next few months. He preached through the summer of 1867, but felt miserably. On the 31st of December, 1867, he preached for the last time. He was then unable to recollect quotations; yawned a good deal.

Jan 1st, 1868.—Was suddenly attacked with unconsciousness, which lasted twelve hours; when he recovered, he dragged the right foot in walking. During the next four months he mis-named things. He called a watch "golden vase;" toothpicks, "pick-pockets," &c., but laughed at his own errors, and repeated the right names when told. In June he had another apoplectic seizure; he fell suddenly, but recovered in a few days. During the next six months he improved in general health, and gained flesh and strength.

Jan. 22d, 1869.—Felt uncomfortable; this feeling increased until the 24th. On the forenoon of that day his speech became

\* Vide case of *meningo-cerebritis*, page 11, issue of 4th inst.

thick; at 11, A.M. he became unconscious, with stertorous breathing; convulsions set in, chiefly of the right side, and he died on the 25th, at 4½, P.M.

Autopsy, Jan. 27th, by J. Homans, M.D. The right hemisphere filled the dura mater more completely than the left. The dura mater covering the left frontal convolutions appeared somewhat shrunken, as if the portion of the brain under it were lessened in size. The walls of the arteries of the brain, where not atheromatous, were very thin. The extra-ventricular lobe of the corpus striatum on the left side was divided by the remains of a former apoplectic clot. This spot had a puckered, cicatrized look, was almost linear in shape, and was surrounded by a distinct membrane of a golden-yellow or brownish color. Its cavity was tubular, scarcely half a line in diameter, and irregular in shape; it extended forwards into the cerebral substance half an inch beyond the corpus striatum. Almost no fluid was found in the second ventricle. The septum lucidum was very soft; the right posterior portion of the corpus callosum and of the roof of the right ventricle was quite soft. In the right hemisphere there was a recent clot, purple in color, rather irregular in shape, and about as large as an almond, situated below and behind the corpus striatum, and involving a portion of its cortical substance about one line in thickness. Neither the third frontal convolution of the left anterior lobe, nor the island of Reil, nor the anterior convolution of the middle lobe were diseased. The two effusions occurred in nearly symmetric localities; both were in the extra-ventricular portions of the corpora striata, and both invaded the white substance—on the left side about half an inch anteriorly, on the right about an inch below and behind. The old apoplectic effusion, in the left hemisphere, was *probably* the more extensive. Many red granules, and some blood-crystals, were found in the membrane lining the cavity of the old clot. The arteries seemed to have no aneurismal dilations. The heart was hypertrophied (weight one pound), and was free from valvular disease. The kidneys were granular; the tubuli were crowded with granules. The peculiar affection of speech was only noticed after the attack of January, 1868. It should be added that no symptoms of renal disease were observed during the life of this patient, nor was the urine ever analyzed. The heart's action had been tumultuous, but not irregular.

We make the following extracts from different numbers of the *Union Médicale*:—

In a paper on certain internal symptoms connected with *Locomotor Ataxia*, Dr. Fé-réal gives an illustrative case, promising to report two more similar ones. He lays down as belonging to, and characteristic of the disease, disorders of sensation and of muscular action in the larynx, in the bronchi, in the diaphragm, and in the whole apparatus of the respiratory function.

*Dr. Brown-Séquard on the Seat of Epilepsy.*—At the Académie Impériale de Médecine, Jan. 5th, 1869, Dr. Brown-Séquard communicated the results of some new researches he had made in relation to the effects of lesions of the spinal marrow. He reminded the Academy that twenty years ago he had produced in guinea-pigs epileptic or epileptiform symptoms by cutting through one of the lateral portions of the spinal marrow in the vicinity of the tenth dorsal vertebra. Three weeks or a month subsequently, the animals which had undergone this operation were seized with veritable epileptic "crises." To bring on these attacks, it was sufficient to irritate the skin of the face or neck. Later, the spasms manifested themselves spontaneously, and occurred several times a day.

Dr. Brown-Séquard has recently repeated his experiments with variations. He has ascertained that epilepsy can be artificially produced not only by the section of either half of the spinal marrow in the vicinity of the tenth dorsal vertebra, but also at points higher up, and nearer to the medulla oblongata. He has seen the attacks come on after double section, likewise; and, also, the production of convulsions in the muscles which are supplied with nerves proceeding from the segment of the spinal cord included between the two sections. The new experiments demonstrate, their author claims, that the greater part of the spinal cord has an active share in the production of epileptic convulsions.

At the session of the 12th of January, Dr. Brown-Séquard said that he had collected together, in a book published in 1857, twelve or thirteen cases of diseases or traumatic lesions of the spinal marrow, which diseases or lesions had produced epileptic symptoms. But, he does not infer from

those facts that the spinal marrow was the seat of the epilepsy. He merely believes that the cord, under the influence of certain lesions, becomes the seat of a special modification, in virtue of which there are produced elsewhere organic troubles from which result the epileptic phenomena.

The Professor, in presence of the Academy, experimented on four Guinea-pigs which he had subjected to section of the spinal marrow about two months previously. One of these animals, which had had its spinal cord cut on both sides, went through attacks of convulsions when the two (*les deux*) sides of the face or neck were pinched. Those which had undergone unilateral section merely, had the symptoms only when the skin of the side operated on was irritated. Dr. Brown-Séquard showed besides a female Guinea-pig which had been impregnated a short time after section of the cord. The mamma of the paralyzed side secreted milk more abundantly than that of the well side.

At both sessions of the Academy, when our *savant* set forth his researches upon epilepsy, there was some discussion, on the part of different members, as to whether the convulsions artificially produced in the Guinea-pigs were really epileptic. Relative to the fact observed by Dr. Brown-Séquard of the turgescence of the mamma on the paralyzed side in a female Guinea-pig, M. Gubler stated that he had noticed and reported analogous phenomena as occurring in conjunction with paralysis in the human subject—i.e., hyperæmia of the lachrymal and salivary glands accompanying facial paralysis.

Dr. Brown-Séquard remarked that he had once had a good deal of doubt about the epileptic nature of the symptoms which he had brought out in animals; but after long comparative study, he had arrived at the conviction of the identity of the disease in man with the symptoms produced in his experiments. In reply to objections founded on certain distinctions which Dr. Chaffard had attempted to set up between the two classes of lesions, he declared that "loss of consciousness" was produced in the animals artificially made epileptic; and as to the question of epileptic anæsthesia, he

could pinch the creatures, prick them, burn them during the attack, without determining other phenomena than movements due to reflex action. These latter phenomena have been perfectly well established as occurring in the human epileptic. There exist in epilepsy artificially induced, the three principal characteristics of epilepsy in man—viz., loss of consciousness; convulsive action; and intellectual torpor following the attack.

The attention of the Academy has also been engaged by reports of committees and discussions upon the noxious effects alleged to proceed from the use of *cast-iron stoves*. We are all familiar with the instructions given by Dr. George Derby, of this city, as to the property possessed by carbonic oxide gas (which is so poisonous), of escaping through cast iron, when that metal is just upon the point of becoming red-hot. The asserted production of typhoid fever by this gas escaping from cast-iron stoves was denied by M. Vernois on the basis of statistics. It was also declared by M. Coulier that a rigid analysis showed the dose of carbonic oxide furnished by a cast-iron stove to be really infinitesimal; and, as usually diluted in the air of a room, to be incapable of toxic effects. In the experiments of MM. Henri Deville and Troost it was proved that each *litre* of air contained only sixteen hundredths of a cubic *millimètre* of this gas.

It was said, on the other hand, however, that the calculations of M. Coulier did not settle radically the question of the noxious influence of cast-iron stoves, though they contributed to its solution. And M. Cloquet thought there could be no doubt that that form of heating apparatus was the source of injurious influences.

We append three questions. How large a proportion of carbonic oxide to atmospheric air is necessary to poison to death, at one session (or one *decubitus*) of a certain number of hours? How small a dose of the gas is infinitesimal—i.e., incapable—when daily respired, for many days in succession—of causing malaise, lowered vitality, or impaired health? Will sheet iron transmit the carbonic oxide on the same terms and conditions as cast iron?

Further reports on this important question are forthcoming. Meanwhile we may remark that M. Carret, who is prominent upon that side of the investigation in France, which is maintained with equal prominence by Dr. Derby here, believes he has discovered a new disease originating in the mode of heating above discussed.

Before leaving this subject, we would refer to the remarks—founded on clinical observation—of Dr. Alden, in *JOURNAL* of 6th inst., page 7.

**PERSONAL.**—A former Editor of this *JOURNAL* has the heartfelt sympathies of the profession in his recent bereavement.

The family physician as well as the teacher should read and ponder "An Address delivered before the Massachusetts Teachers' Association, October 17th, 1868," by Dr. H. W. Williams, on Optical Defects in School Children. We had marked extracts which are crowded out.

We have received from Messrs. Leach & Greene one of their "improved steam atomizers." The apparatus is well made, and does its work to our entire satisfaction.

**ICTERUS AND PNEUMONIA.**—Oppolzer, in a clinical lecture, says that in Berlin the coincidence of icterus with pneumonia has been considered to constitute a distinct variety of pneumonia. In his opinion, however, "the whole difference between bilious and non-bilious pneumonia is, that in the former case a certain complication is present. We meet now and then, especially in summer, cases of pneumonia accompanied with severe icterus, a disposition to diarrhœa, delirium and apathy; the abdomen swells, the tongue dries quickly, and the disease assumes a typhoid character. Such cases often occur in large numbers, and it is usual to say that they ought not to be treated by bleeding. But who says that it is an established custom to bleed in pneumonia? Only in Italy, at the present day, is the maxim of ancient physicians still reiterated—'Pneumonia—blood-letting.' We bleed only when the congestion is so great as to threaten, in the lungs, suffocation; in the brain, sopor or paralysis; or when the disease runs a very rapid course, and a large quantity of bloody sputa is thrown up.

We bleed, therefore, not because of the pneumonia, but in spite of it."

He denies that icterus can be caused by suppression of the secretion of bile, or by sanguineous congestion of the liver. He describes two kinds of icterus. In one (hepatogenous), the secreted bile is reabsorbed; this fact is indicated by the brown color of the urine. The other (hæmatogenous), he ascribes to the dissolution of the blood-corpuscles, and the transformation of their hæmatin into hæmatoidin; a substance which Brücke states to be identical with bilifulvin. In this case biliary acids are not found in the urine.

In the majority of cases, when icterus occurs during pneumonia, it is associated with gastro-duodenal catarrh, white stools, and brown urine. If severe, it is a dangerous complication; and the danger increases in proportion to the diminution of the urine, and the accumulation of biliary acids in the blood. Paralysis of the central and of the circulatory nervous systems is the consequence of this state of the blood. Oedema of the lungs comes next in the logical order of phenomena; it is usually preceded by symptoms of prostration, apathy, and delirium; râles are heard in the chest, and death follows with symptoms of oedema and paralysis of the heart. This is the mode of death in all diseases of the liver.—*Allg. Wiener Med. Ztg.*, Jan. 12. D. F. L.

FROM an able and interesting article in the *New York Medical Journal* on the Mechanism of the Crepitant and Subcrepitant Râle, by Austin Flint, M.D., Professor, &c., we make the following extracts:—

"For my knowledge of the artificial production of the crepitant râle in the way I am about to describe, I am indebted to my friend and associate, Dr. Henry F. Walker. Dr. Walker happened to purchase an article labelled 'Patent India-rubber Sponge,' which is designed to take the place of the ordinary sponge for the toilet. The article consists of a block of India-rubber which has been made to assume a cellular arrangement, evidently by the introduction of air or gas while the substance is in a liquid state and during its congelation. On examining the article, it will be seen to be made up of cells of unequal size, the appearance being very like that of a portion of emphysematous lung. The elasticity of the India-rubber causes the article to expand after it has been compressed, the well-known cohesiveness of this substance offer-

ing a certain amount of resistance to the expansion. Now, after having examined the structure, if each one present will compress with the fingers the article which I shall presently ask you to pass around, holding it close to the ear, and then allow it to expand, it will be at once perceived that a crepitant râle is beautifully represented. The fineness and dryness of this râle are perfectly exemplified. It will be observed that the compression of the article causes no sound. This act of compression is to be considered as taking the place of expiration. The expansion is analogous to the movement of the lung in inspiration. The compression brings the walls of the cells into contact, and, from the adhesiveness of the substance, they cohere with a certain amount of force. There being no liquid present, the râle must be produced by the separation of the cell-walls by the elasticity of the substance.

"The production of the crepitant râle, in the manner now illustrated, demonstrates the error of attributing the fineness of the râle to the small size of the cells. The fineness is not less marked when produced by the India-rubber sponge than when it emanates from the pulmonary vesicles and bronchioles. Dr. Carr's mode of illustration, by pressing together and separating the finger and thumb moistened with thick paste or mucilage, also demonstrates this error. . . . The application of the 'India-rubber sponge' to show the mechanism of the subcrepitant râle was suggested by Dr. William J. Chandler, one of the house-physicians at Bellevue Hospital. If a portion of the 'sponge' be compressed and allowed to expand under water, the cells are filled with liquid; and now, holding it close to the ear and alternately pressing it and relaxing the pressure, fine bubbling sounds are produced. That bubbling is caused by the pressure, is shown when the portion of 'sponge,' of the cells filled with liquid, is compressed under water; small bubbles, of unequal size, in great abundance, rise to the surface. This artificial subcrepitant râle is produced alike by the pressure of the 'sponge' and by the expansion after the pressure; thus, the fact of the occurrence of this râle, as a morbid sign, in both inspiration and expiration, is illustrated.

"The bubbling, as thus produced, is very fine, and the resemblance of the subcrepitant to the crepitant râle is admirably shown by producing alternately, with two portions of 'sponge,' one portion dry and the other filled with liquid, the representa-

tions of the two râles. This may be practised with advantage in order to exercise the ear in discriminating the differential characters of these two râles.

"The crepitant râle" being "caused by the separation of the walls of the air-vesicles and bronchioles, in the manner explained by the late Dr. Edson Carr, of Canandaigua, N. Y., in 1842, it is highly probable that the peculiar quality pertaining to the inspiratory sound in the healthy murmur of respiration is due to the same cause, the cohesion of the walls of the air-vesicles and bronchioles not being sufficient to give rise to a crepitant râle."

This suggestion is claimed as original by Dr. Flint.

PNEUMONIA, BLEEDING, RAPID RECOVERY. Under the care of Dr. WILKS.—We are indebted to the *Buffalo Medical and Surgical Journal* for the following extracts from a passage it quotes from *Guy's Hosp. Rep.*

"L. B., aged 18, a servant girl, small but robust, was admitted Sept. 23d, with rational symptoms and physical signs of pneumonia. She got a saline and some Dover's powder. . . . On the following day she was worse, and towards evening was excessively ill; the fever was very high, and there was great oppression of breathing; crepitation was heard all over the remainder of the right lung, and there was some suspicion of the left lung having also been attacked. Mr. Reginald Stocker having informed Dr. Wilks of her condition, the latter ordered her to be bled, and to have calomel, antimony, and opium pill every four hours. This was accordingly done, and with very marked and quick relief to her oppressed breathing. On the following day she was much more comfortable; bronchophony now heard at top of lung; the left quite free. On Sept. 26th the febrile symptoms were subsiding; physical signs of consolidation of lung pretty perfect. On the 28th, much better; fever departing; sputa bronchial; to omit the pills. In a day or two she left her bed, rapidly convalesced, and left the hospital quite well on October 14th.

"As regards bloodletting, Dr. Wilks said he had no data on which he could found an opinion as to its value in pneumonia or other diseases, as an antiphlogistic—that is, as to its power in arresting the inflammatory processes; but he had no doubt as to its good effects in relieving congestion of the lungs under any circumstances. He believed therefore, firmly, that he had seen

venesection save life in pneumonia, bronchitis, heart disease, apoplexy or epilepsy. In pre-auscultatory times it might be that the doctor was apt to style many chest affections pneumonia; but when he was called to a patient sitting up in a chair, livid in the face, panting for breath, and he took out his lancet, and whilst he was bleeding *pleno rivo* he saw tranquillity restored, he could not be mistaken as to the good effects of his remedy. Thus it was in the case above reported; immediate relief was obtained, and it may be, as Mr. Stocker thought, an arrest to the further progress of the inflammation."

WE are indebted to H. Sidney Everett, Esq., for a copy of the First Annual Report of the St. Joseph's Home for Sick and Destitute Servant Girls, No. 45 East Brookline Street, for the year ending Jan. 1, 1869. The President is H. Sidney Everett, Esq.; Vice President, Very Rev. P. F. Lyndon; Treasurer, J. F. Tallon, Esq.; Secretary, John Conlon, Esq. The medical staff is thus composed:—Wm. Read, M.D., Charles G. Putnam, M.D., Consulting. Physicians—Wm. Ingalls, M.D., Hall Curtis, M.D., D. F. Lincoln, M.D., W. F. Munroe, M.D. Surgeons—F. H. Brown, M.D., John Homans, M.D., F. B. Greenough, M.D., S. W. Langmaid, M.D. It is stated that—

"The greater part of our inmates . . . and the class we especially intend to assist, consist of those hard-working servant girls out of place, who have become exhausted and unwell while at their work, and need a temporary respite on such terms that, though far from home and friends, they can find a good home by a moderate payment, or a little light work as equivalent, having a chance during convalescence to seek a new situation, if they do not return to their old one."

ETHER.—Among the *Ephémérides Médicales* it is recorded that the lamented Malgaigne announced to the Academy on the 12th of January, 1847, that having been put in possession of the "American facts" relative to the employment of sulphuric ether for the purpose of blunting sensation, he had tried this agent five times at the *Hôpital Saint-Louis*. A young man of 18 years, with a suppurating phlegmon of the leg, was subjected to the inhalation. At the expiration of ten minutes there was "cataleptic coma." The surgeon made an extensive incision. Two minutes afterwards, the patient awoke. "I am going to operate on you," said Malgaigne. "I am quite willing, since it is necessary," replied the young man. He had felt nothing.

An extirpation of a cervical gland, another operation very similar to that, and an amputation of a leg followed—with entire freedom from pain. One only of the five patients was not rendered insensible by the inhalation.

DR. W. T. THOMAS, in the *Transactions of the New York Medical Society*, suggests how smallpox and scarlet fever may spread, in these words:—

"But the poisons of smallpox and scarlet fever will spread in spite of free ventilation, and they retain their power of causing the same disease for

a long time, and, in the case of scarlet fever, for months. Then the scabs and epidermic scales are doubtless the active agents of propagation. In the one case, the poison may be a mere cloud of molecules; in the other it may be contained in the epithelium and pus-cells, thrown off from the skin in both cases, and from the throat also in one, which adhere to the walls, clothing, or carpets, becoming partially dry; but then, being dislodged by sweeping, dusting, &c., are blown up into the air and inhaled into the lungs of some one, where they again become active by means of warmth and moisture."

CASE OF CO-EXISTENT TÆNIA SOLIUM AND TÆNIA LATA.—F. Hinkle, M.D., of Columbia, Pa. (*The Humboldt Medical Archives*), reports a case of co-existent *tenia solium* and *tenia lata*, which was relieved by an aqueous extract of the bark of the pomegranate root.

### MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic. TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary. WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS. FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary. SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Report from the Eye and Ear Infirmary—Report from the City Hospital—Letter from Vienna—Translation from the German—Cerebral Amaurosis—Cases of Herpes Zoster—Experimental Physiology.

BOOKS AND PAMPHLETS RECEIVED.—The Ship Captain's Medical Guide. Compiled by Harry Leach, Resident Medical officer Hospital-ship "Dreadnought." Second Edition. London: Simpkin, Marshall & Co.—Second Annual Report of the Board of Trustees and Officers of the Minnesota Hospital for the Insane, for the year 1868.—Annual Report of the New England Hospital for Women and Children, for the year ending Nov. 1, 1868.

MARRIED.—At Chelsea, Feb. 3d, Dr. Geo. W. Churchill to Miss Lydia A. Shaw.

DIED.—At Cambridge, Feb. 4th, John Appleton, M.D., aged 60.

DEATHS IN BOSTON for the week ending Saturday noon, February 13th, 101. Males, 50—Females, 54.—Accident, 3—apoplexy, 1—inflammations of the bowels, 3—congestion of the brain, 1—disease of the brain, 4—bronchitis, 3—cancer, 1—consumption, 11—convulsions, 2—croup, 1—cyanosis, 2—debility, 2—diarrhoea, 1—diphtheria, 2—dropsy, 3—dropsy of the brain, 4—erysipelas, 3—scarlet fever, 12—typhoid fever, 2—disease of the heart, 2—Intemperance, 1—disease of the kidneys, 2—congestion of the lungs, 2—inflammation of the lungs, 9—marasmus, 4—measles, 3—cerebro-spinal meningitis, 1—old age, 1—paralysis, 2—peritonitis, 2—pleurisy, 1—premature birth, 2—puerperal disease, 3—purpura, 1—scalded, 2—score throat, 2—unknown, 3.

Under 5 years of age, 51—between 5 and 20 years, 10—between 20 and 40 years, 23—between 40 and 60 years, 8—above 60 years, 12. Born in the United States, 82—Ireland, 20—other places, 2.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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[VOL. III.—No. 4.]

## Original Communications.

### TWO CASES OF PARALYSIS OF INTRINSIC MUSCLES OF THE LARYNX.

Read before the Boston Society for Medical Observation,  
Dec. 21st, 1868, by F. I. KNIGHT, M.D.

I OFFER to the consideration of the Society reports of two cases of paralysis of muscles acting on the vocal chords. The first one, as it now stands, may be open to the criticism to which Mackenzie said some of his were liable, viz., "of wanting in point"; but it is reported, incomplete as it is, on account of the rarity of the affection, and because it illustrates the value of laryngoscopic examination in determining the propriety of surgical interference in cases of dyspnoea.



**CASE I.**—*Paralysis of both Abductors.\**—On the 5th of October last, I was called in consultation by Dr. Winsor, of Winchester, in a case of dyspnoea and stridulous breathing. Arriving, I found a lady, about 60 years of age, sitting up in bed, and breathing with great difficulty. I only learned from Dr. Winsor at this time, that she had had some cough and hoarseness for a year, and had recently become aphonic; and that for some days respiration had been very difficult. I immediately proceeded to make a laryngoscopic examination, expecting to meet with some difficulty on account of the embarrassment of respiration and the nervousness of the patient. Very fortunately, I was enabled to obtain a perfect image of the larynx without touching the mirror to the soft palate.

\* I have in this paper employed the terms adductor and abductor as proposed by Morell Mackenzie; an adductor being a muscle which tends to move the vocal chord towards, and an abductor one which tends to move it away from the median line.

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As soon as the image came in view, the cause of the stridulous breathing was apparent, there being total paralysis of both posterior crico-arytenoid muscles, which open the glottis. The vocal chords were, lying near the median line, and did not open at all during inspiration, which was maintained through a very narrow chink about one sixteenth of an inch wide. This space was widened a little during expiration. The chords seemed to be a little oedematous, and on attempted phonation seemed to approximate a little.

Immediate tracheotomy was advised, and of course met with the approval of Dr. Winsor, who also had obtained an excellent view of the larynx. On account of the distress of the patient, I did not ask to be allowed to examine the chest. The operation was delayed till the next day, to obtain the consent of the family, when it was performed by Dr. Winsor, who, at my request, afterwards sent me the following history of the case:—

"Miss B. is 60 years old. Her mother, one sister, and one niece died of phthisis. Perhaps other relatives went the same way. Her mother and one sister, and herself also, were unusually subject to choking at meals—'having things go the wrong way.' Miss B. has for years been rather feeble and subject to cough, but always animated and spirited. About fourteen months ago, I attended her through an illness marked more by debility than anything else—low febrile action and vague pains; abdominal tenderness, but no diarrhoea or rose spots; no epistaxis. For several days there was quite sharp pain in the lower part of left chest laterally, like pleurodynia. There were no auscultatory sounds to correspond, there or elsewhere throughout the chest, though she coughed a good deal. I called this sickness typhoid fever, and am still of the opinion that it was such. She had no cerebral symptoms whatever. She recovered in a lingering way, her appetite and strength being very slow to come back. Insensibly, hoarseness, and want of control over the voice, together with a spasmodic sort of cough, crept on, not grow

[WHOLE No. 2139.]

ing steadily worse, but fluctuating. I attended, off and on, and tried many things for the laryngeal difficulty, giving tonics meanwhile for the general system. No real benefit to the local trouble resulted, but her strength slowly improved.

"Sept. 23d, 1868, I was called to her on account of the old pleurodynia and harassing cough, which latter had now more of a croupy sound. Speech was little more than a hoarse whisper, and sensations of heat, smarting and itching were referred to the larynx; sputa scanty, and she complained that what was started by the cough stopped at the larynx, and 'seemed to fall back.' The cough kept her awake and sitting up in bed a great deal, and so spasmodic and 'strangling' did it become late in September that I was called to her in the night. Physical signs had pointed more of late to tubercular deposit in the lungs, and I apprehended ulceration in the larynx, and asked, Oct. 5th, for the advice of one skilled in the use of the laryngoscope. What the instrument showed, you know.

"I performed tracheotomy Oct. 6th, first etherizing the patient, whose breathing did not grow worse under the influence of the anæsthetic, as I dreaded it would. A previous trial of ether, to relieve dyspnoea, had caused so much distress that I was full of misgiving as to being able to get the benefit of it for the operation. I suspect that the breathing gained more from the suppression of apprehension, than it lost by increased dulling of nervous susceptibility in the already paralyzed muscles. The neck was so long and free from fat, that I hoped to reach the trachea easily, but the hypertrophied condition of the muscles concerned made the operation a tedious one. It was necessary to tie one vein. The tube once in the trachea, cough was provoked by its presence, and great quantities of mucus were thrown out or pulled away. Respiration improved at once, and has maintained its improvement to date (Nov. 18th), six weeks since operation. The patient has gained both quantity and firmness of flesh; her complexion is markedly more ruddy (it was dusky when you saw her), and she eats more, though not as much as is desirable. The cough, however, is no better, and deprives her of quiet sleep. Much tenacious mucus is raised by the tube; only on three or four occasions has any passed the vocal chords."

Dr. Winsor, after stating some difficulties with regard to keeping the tube in place, says:—"If the tube is taken out, she experiences greater ease than usual for

perhaps an hour, but then becomes uneasy, coughs more, and breathes more laboriously. . . . She soon demands the replacement of the tube. The lining membrane of the trachea can be seen to be reddened and thickened.

"At no time has there been any hint of paralysis elsewhere than in the larynx. The mental and perceptive processes are uncommonly prompt, and there is no want of consentancy of muscular action."

It is unnecessary to dwell on the diagnosis in this case; the laryngeal appearances are sufficient; but when we come to the consideration of the causes of the paralysis, the case, as I intimated in the beginning, is somewhat wanting in point. Paralysis is probably due to interference, within the chest, with both pneumogastric or both recurrent nerves. Of the nature of that interference we have no definite information.

The prognosis is of course bad, even now that tracheotomy has been performed, on account of the serious disease implied within the chest.

An immediate operation was necessary, for a very slight inflammation or spasm might have terminated the patient's life before a surgeon could have been obtained.



CASE II.—*Paralysis of the Right Adductors, involving a Question of the Action of the Arytenoideus Muscle.*—W. S. N., a gentleman from Vermont, was transferred to me by Dr. H. I. Bowditch for laryngoscopic examination and treatment, June 7th, 1867. He was a man of large frame, 45 years old, and asked advice on account of loss of voice. He gave the following history. On the 22d of February, 1867, he was taken down with pain, redness and swelling of the joints. He was confined to the house, and most of the time to the bed, for eight weeks. About the third or fourth week of his sickness, he one morning noticed his voice hoarse, and in the afternoon of the same day he lost it altogether. He at this time was having much pain in the right shoulder. Since that time he had continued aphonic. He had occasionally had a little unpleasant feeling about the throat, and said that, when laughing or gaping, he felt as if he



should choke. He had never had any dysphagia. He had had cough occasionally, but never hæmoptysis. He here stated that during the previous December he had epistaxis every day, on two or three occasions profuse, lasting from fifteen to twenty minutes. He had no pain in the chest, no dyspnœa nor palpitation of the heart. He could lie equally well on either side of the chest. He had no symptoms of cerebral trouble. When I first saw him, he was looking rather pale, and showed in his general appearance that he had been sick. He spoke only in a whisper, and was still troubled with pain, particularly in the finger-joints, which were red and swollen. His pulse was 92, of the same character at both wrists. There was no difference in the size of the pupils. Tongue clean. Appetite fair. Bowels regular. Urine high-colored; there had been brick-dust deposit, but there was none at that time. On physical examination, his chest looked large and full, and Dr. Bowditch had found no signs of aneurism or other thoracic disease.

On laryngoscopic examination, I found the right vocal chord immobile in respiration and attempted phonation. It remained in an intermediate position, the vocal process being directed outwards; but the mucous membrane covering the right arytenoid cartilage was pulled towards the median line, and in this way the cartilages of Santorini were approximated. The larynx otherwise appeared healthy. The left vocal chord, on attempted phonation, moved fully up to the median line.

By what could this immobility be caused? By paralysis of the muscles which are necessary for the adduction or abduction of the chord on the right side, or by ankylosis of the crico-arytenoid articulation? But it will be said that all the muscles which adduct the right chord are not paralyzed; for we have evidence of the contraction of the arytenoideus, the mucous membrane and the contained cartilage of Santorini on the right side being pulled towards the median line.

For this reason, allowing to the arytenoid muscle the function generally assigned to it, i. e., of approximating the vocal chords by an approximation of the arytenoid cartilages, I considered and reported the case at the time as one of ankylosis of the crico-arytenoid articulation. "For," I said, "we have evidence of the contraction of this muscle in the approximation of the cartilages of Santorini (which were evidently in this case not united to the arytenoid cartilages), and yet the right

vocal chord does not move at all towards the median line; therefore, there must be trouble in the articulation, preventing motion." Since then I have had serious doubts about the action of the arytenoideus muscle. It has generally been considered an important factor in closing the glottis. It has been thought that it did so by approximating the arytenoid cartilages.

I will quote from a few authorities to show the common belief with regard to this muscle. Most of them speak of closing the posterior part of the glottis, but it will be evident to any one that the cartilaginous glottis cannot be closed without approximation of the anterior angles of the arytenoid cartilages, and consequently movement of the vocal chords nearly up to the median line. In cases of paralysis of the ligamentous glottis, with closure of the cartilaginous, the vocal chords lie quite near each other, but are relaxed, through inefficient action of the tensors (cricothyroids). Sharpey and Quain say:—"The single arytenoid muscle approximates the arytenoid cartilages, and thus constricts the posterior part of the rima glottidis. The tendency of some of its fibres, but especially the superficial and oblique ones, to rotate the arytenoid cartilages outward, and thus, by drawing more apart their anterior processes, to widen the opening of the glottis, is counteracted by the lateral crico-arytenoid muscles." Semcleder says:—"The closure of the glottis is produced by the approximation of the arytenoid cartilages from the contraction of the arytenoideus posticus, and of the superior fibres of the crico-arytenoideus posticus; and by these cartilages being turned inwards towards each other until their internal surfaces touch, from the action of the crico-arytenoideus lateralis." Tobold says:—"Contraction or closure (of the glottis) occurs by means of the true arytenoid muscles, transverse and oblique, both internal surfaces of the arytenoid cartilages being approximated, through innervation from the recurrent laryngeal, and some filaments from the superior laryngeal." Mackenzie says:—"In vocalization, the two chords are approximated or adducted to the median line." "The crico-arytenoidei laterales and the arytenoideus proprius are the adductors."

If the arytenoideus proprius "adducted" the vocal chords, i. e., moved them towards the median line, it would still do so, it seems to me, to a certain extent at least, when the parts supplied by one recurrent laryngeal nerve were paralyzed, as this

muscle is supplied with nervous filaments from both sides. This, however, is not the case. If the left recurrent nerve is compressed by an aneurism of the arch of the aorta, the muscles of the left side of the larynx are paralyzed, and the left vocal chord stands still; and a similar result follows when the recurrent laryngeal nerve on either side is compressed or injured in any way.

Let us consider the anatomy of the parts, and see if there is in their structure any reason for supposing that the arytenoid muscle does not, by itself at least, tend to approximate the vocal chords.

According to Gray, whose account is rather more easily condensed than that of others, the arytenoid cartilages are pyramidal in form, and each presents for examination an anterior, a posterior, and an internal surface, a base and an apex. The internal surfaces of the cartilages lie almost in apposition.

The base of each cartilage presents a concave surface for articulation with the cricoid. It has an anterior, a posterior and an external angle. The external one receives the insertion of the posterior and lateral crico-arytenoid muscles. The anterior one receives the insertion of the true vocal chord.

The ligament connecting the arytenoid and cricoid cartilages is a loose capsular ligament, strengthened behind by a strong posterior crico-arytenoid ligament, which extends from the cricoid to the inner and back part of the base of the arytenoid cartilage.

The arytenoid muscle arises from the posterior surface and *outer border* of one arytenoid cartilage, and is inserted into the corresponding parts of the opposite cartilage. Fournié, in his "*Physiologie de la Voix et de la Parole*," published at Paris in 1866, says simply that this muscle arises from the external border of one cartilage, and is inserted into the external border of the other. Cruveilhier says the same. No one, after considering the origin and insertion of the lateral and posterior crico-arytenoid muscles, will doubt that their actions are respectively to close and to open the glottis. Is there anything in the structure of the parts, which may lead us to doubt the action of the arytenoid muscle in approximating the vocal chords? The arytenoid cartilages lie very near each other naturally, and the vocal chords are not *separated* by an absolute separation of these cartilages, one from another, but by a rotation of their anterior angles outward. The cartilages are so fixed by

their articulations, that, while capable of free *rotary* motion, they are capable of very little *lateral* motion, at their bases; and it is at the base that the vocal chords are inserted, and only an *approximation* of their *bases* would tend to bring together the vocal chords. It would almost seem as if, being attached particularly to the *external borders* of these cartilages, so capable of free rotation, the arytenoid muscles, contracting when the cartilages are already rotated outward, if they moved them at all would tend rather to rotate the anterior angle still further outward. This has been mentioned by Cruveilhier, and Sharpey and Quain speak of such a tendency in certain fibres of the arytenoids. It may be said that in my case the *transverse* fibres of the arytenoid were paralyzed, and not the *oblique*, which run from the base of one cartilage to the apex of the other, and thus are said to approximate the apices. This may have been so; but it seems to my mind more probable that in those cases of unilateral paralysis, where the cartilage of Santorini also stands still, it does so because it is united firmly to the arytenoid cartilage of the same side.

Morell Mackenzie mentions, without comment, the fact that in the only case of unilateral paralysis which he ever examined after death, one of seven years' standing, there was considerable atrophy of the left lateral crico-arytenoid muscle (the left being the paralyzed side), although the arytenoid proprius did not appear to have suffered. It seems probable that this muscle would have shown some change, if it had been inactive for seven years.

If, then, we consider that the arytenoid muscle has very little, if anything, to do with the approximation of the vocal cords, at least till after the rotation has taken place by means of the lateral crico-arytenoid, we must consider its principal action to be what has been assigned to it as a secondary function, viz., to fix the cartilages during vocalization. I will briefly review my reasons for doubting whether the arytenoid muscle plays an important part in approximating the vocal chords.

1. If it did, being supplied with nervous filaments from both the right and the left recurrent laryngeal nerves, it ought still, in case of any lesion of one of these nerves, to approximate the chords, to a certain extent at least, through motor power derived from the other; which does not occur.

In my case there was evidence of the contraction of at least the oblique fibres, the right cartilage of Santorini evidently not being attached to the arytenoid cartilage.

2. The nature of the crico-arytenoid articulation is not such as to permit of much lateral motion in the arytenoid cartilage.

3. The insertion of the muscle itself, being mostly in the external borders of the arytenoid cartilages, is not such as to favor the approximation of the anterior angles (in which the vocal cords are inserted) during contraction of the muscle.

The above case has been reported here merely for the purpose of bringing up a physiological question, and in regard to the further history of it I will merely say, that I applied electricity by means of Mackenzie's original instrument, one pole over the right arytenoid cartilage inside, and the other one outside. Internally I gave iodide of potassium. The patient came to see me nearly every day. On the 22d he spoke in a loud hoarse voice.

On examination the right chord was found as immovable as ever, but the left chord passed the median line and approached the right, so that the current of expelled air caused vibration.

On the 26th he was obliged on account of business to go home. On the 12th of July he wrote me that his voice was the same.

On March 13th, 1868, he visited me again. He stated that after returning home he had himself continued to employ electricity, both poles being of course outside the larynx. The voice gradually improved in quality, and at the time of this visit was as good as ever.

On laryngoscopic examination the right vocal chord was found to move during phonation, but not so much as the left, which still passed the median line. He was advised to continue the use of electricity.

#### LETTER FROM VIENNA.

MR. EDITOR,—You request me to write a "letter to the Boston Med. and Surg. Journal about microscopical matters in Vienna." I have worked but a short time with the microscope, but will endeavor to give you some account of the way that branch is taught here, as far as my experience goes.

The authorities in microscopical matters in Vienna are Prof. Brücke and Prof. Stricker, though there are many other teachers here.

The microscope employed here, I may say, as far as I know, is chiefly Hartnack's, although Nachet's is somewhat used, I believe. But as I myself have used only a Hartnack, my opinion upon microscopes must naturally be extremely one-sided.

There are three sizes of stands in vogue. In the smallest size the stage is stationary. In the two other sizes the stage can be turned round in a horizontal direction, and some are with a joint, so that the stage can be placed at an angle. In the largest size the coarse adjustment is made by means of a screw, while in the other sizes it is made with the hand. The advantages of these stands made by Hartnack, are practicability, simplicity, elegance and cheapness. With these stands any oculars or objectives made by Hartnack can be used. The oculars most generally used are No. 2 and No. 3. I myself use almost entirely a No. 3. For objectives one needs No. 5 and No. 8 for the low powers, a No. 10 immersion for the high power. For all practical purposes these glasses are sufficient. By placing a concave lens in the lower end of the inner, movable tube, the power is very much increased, and in proportion to the strength of the lens used.

The "field" is large, the light good, and the object extremely well defined with these lenses.

Prof. Stricker, with whom I am studying, does not give at first a complex organ to examine, as a cut of lung or skin, &c., but he gives a simple element, such as elastic tissue, epithelium, muscle, &c., to study and follow out in its various forms in the different situations where it is found. When all the simple elements have thus been separately made familiar, then one is competent to examine them in combination, and also (which is of the greatest advantage) one can study by himself and know what he is seeing under the microscope. Every one makes his own specimens, and immediately after the death of the animal. When it is possible the specimen is immediately examined in a wet state. When a thin cut is to be made, the preparation is frozen if possible, or it is immediately thrown into some fluid to harden. Although I can put my microscope at an angle, I look upon that power as only a luxury that can seldom be indulged in, as it is impossible to examine wet specimens or make drawings excepting in the upright position.

In the Laboratory one has not only the opportunity to study with the microscope, but also to learn all methods of "hard injections" by means of which the finest vessels can be followed. By injections of nitrate of silver the epithelium of the vessels is brought into view; and by chloride of gold the nerves are seen in their finest endings.

Embryology can also be studied at the same time, as under the running water of

the faucet are the impregnated eggs of the trout, which are watched every day in their development; while over the gas light are hens' eggs in the process of developing the chick. There is an extremely simple arrangement attached to the gas pipe, by which the flame is regulated so that exactly the proper temperature is kept up night and day for an indefinite length of time.

Physiological experiments are also being made. I placed myself as a student with Prof. Stricker without any fixed aim in view, such as the use of the microscope in the study of the skin in disease, embryology, &c. At present I am studying the effect of drugs on the circulation of animals by means of the sphygmograph; having begun my studies with the Professor upon the blood with the aid of the microscope, and that leading to the observation of the circulation. At the same time I am studying the other tissues of the body.

Last month appeared the first part of a "Handbook of the Study of the Human and Animal Tissues," under the editorship of Prof. Stricker, and contributed to by all the first microscopical authorities of Germany. One part is to appear every three months till completed. As may be supposed, it will be an extremely interesting and valuable work.

H. P. QUINCY.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

THE following case presents two points of great interest. *First*, cancerous disease is excessively rare in the tonsil; *second*, the mode of operating for its removal, by *external incision*, is believed to be without precedent.

CASE I.—*Encephaloid Tumor of Tonsil; Removal by External Dissection.* (Service of Dr. Cheever.)—G. M., a well-formed, robust sailor, aged 34 years, without any hereditary predisposition to disease, and in the enjoyment of perfect health previous to his present disability, presented himself at the hospital with the following history. Six months before, without any known cause, his left tonsil became enlarged and painful. It was treated by his physician as a case of tonsillitis, and, in due time, a portion of it was excised from within. No relief followed, but, instead, the tonsil continued to increase in size, and the region

of the section became an obstinate ulceration. His articulation and deglutition were impaired to a considerable degree, and dyspnoea was quite marked, especially at night.

On his entrance to the hospital the affected tonsil appeared much enlarged. The mass protruded into the fauces, and at its apex presented an indolent ulcerated surface, one inch and a half in diameter, with raised and everted edges. Externally, corresponding with the internal growth, and moving with it as if it were a part, was a nodule lying in the left sub-maxillary digastric triangle, of the size of an English walnut. Manipulation of this mass gave pain. The condition of the man otherwise was excellent. There was neither the history, nor any appearance of syphilis.

He was able to take only liquid diet, and was ordered a gargle of diluted liquor sodæ chlorinatæ, the discharge from the ulcer being offensive.

During an interval of three weeks, it was observed that the tumor doubled in size, internally and externally. The consequent symptoms became much more grave, and called for some operative interference. The situation and large size of the tumor, as well as its projection outside the throat, contraindicated any operation from inside the mouth, and it was therefore decided to attempt removing it from the outside by external incision—a deep and difficult operation, with no precedents to fall back on.

*Operation.*—Etherization was slow and difficult, on account of the obstruction to respiration by the tumor in the fauces. As soon as it was accomplished, an incision was made, extending from just within the angle of the jaw, downward, over the most prominent part of the tumor, a distance of three inches and a half, and in direction parallel with the sterno-mastoid muscle; this incision was met by another, one inch and a half long, extending along the lower border of the jaw. The parts were dissected away on either side until the diseased growth was reached. On enucleation this was found to be an enlarged and diseased lymphatic gland, of the size of an English walnut. It had no distinct connection with the tonsil within, but the disease was distinctly encephaloid in character. It lay outside all important structures, and was entirely removed without difficulty. The dissection was now extended until the tonsil was reached. In its course, the digastric, the stylo-hyoid and the stylo-glossus muscles were divided, the stylo-pharyngeus being left intact, on account of its

proximity to the glosso-pharyngeal nerve. The fibres of the superior constrictor of the pharynx were picked apart with a director, and the pharynx thus opened between them. The finger of the operator was now enabled to sweep entirely around the diseased tonsil, the pillars of the soft palate being left intact; the mass was removed, and presented all the appearances of encephaloid disease, its size being that of a pullet's egg.

The hæmorrhage during the operation was free but not excessive; the largest vessel divided being the facial artery, which was cut close to the carotid. Twelve ligatures were applied. A few of the smaller branches of the facial nerve were divided, and paralysis of the lower lip, on the same side, was the consequence. It was also observed that, on account of the section of the styloglossus muscle, the tongue, when protruded, took a direction toward the opposite side. A single suture closed the horizontal incision; the wound otherwise was left freely open, air passing through it with each expiration. Recovery from these was speedy, and there was no marked depression from the operation.

Not a single complication occurred to hinder the progress of recovery. Suppuration of a satisfactory character commenced on the second day. During the first week after the operation the patient took liquid nourishment, administered by means of the stomach-pump. From the outset there was no pain, and respiration was easy. The granulating process was rapid, and at the end of eight days no fluid passed through the wound in deglutition. After eleven days a small patch was observed at the lower part of the posterior pillar of the palate, which had the appearance of the original malignant growth; it was freely cauterized with nitric acid, and there was no subsequent reappearance. After seventeen days, solid food was swallowed without difficulty. In thirty-one days the wound had entirely closed. The pharynx was entirely clear; and except that the pillars of the palate on the side affected were somewhat separated, it appeared in perfectly normal condition. The tongue was protruded in a straight line, and no paralysis of the lip remained. From the operation until recovery, there was no constitutional disturbance requiring special notice.

As has been already stated, the gross appearance of both tonsil and gland were alike, and unmistakably encephaloid. The following is a record of the microscopic appearance:

"The tumor was of a soft and friable nature, slightly lobulated, and of a grayish-red color. On section it yielded an abundance of juice of a milky color, and of considerable consistency. Under the microscope both the tonsil and the enlarged lymphatic gland appeared the same. They were composed of cells of moderate and uniform size and ovoid form, containing nuclei, and many, also, nucleoli. There was no fibrous tissue between them, but a great number of small dark granules, appearing to be freed nucleoli. On the addition of acetic acid the nuclei became more distinct, and cells were visible containing three or four of them.

"To base the diagnosis of the character of a tumor upon its microscopic appearance alone, is a mistake not to be committed.

"No single element of which a structure is composed can be looked upon as characteristic of the cancerous form of growth only. Neither the character of the cells, nor the nature of the matrix, nor the arrangement of the elementary constituents, can separately determine the point; and it is only by carefully comparing the collective appearances observed upon microscopical examination, that we can decide.

"If we examine the cellular pathology of cancer, we shall find that in the whole range of pathological growths there cannot be found any structure of an absolutely new form, or one which, in one way or another, cannot be regarded as a reproduction of physiological tissues.

"The mere form of cells which compose a structure is of no decisive value; and although it is thought by many that any cell of a spindle or caudate shape with large nuclei is a cancer-cell, yet the fact that on the surfaces of the urinary passages in their whole extent, the same curious bodies, provided with large nuclei and nucleoli, are found, tends to upset the whole theory of there being anything peculiar in a cancer-cell."

#### *Rarity.*

"Cancer of the tonsils is a very rare disease, whether scirrhus or encephaloid. Its existence is even doubted by some authorities, and it is not mentioned by the majority. It has been observed by Lobstein, J. C. Warren, Velpeau (five cases), Vidal de Cassis, Roux and Fano, Lebert and Demarquay. It is observed, for the most part, from the age of forty up to advanced life; and presents itself oftenest in the form of a tumor developed in these glandular bodies, and, at an advanced stage, with the appear-

ance of an open ulcer, showing all the characteristics of cancerous disease.

"Cancer of the tonsils is primary or secondary; sometimes limited to that gland or even to one of its parts (Fano); in other cases sending out irradiations more or less extended towards the neighboring parts, particularly at the side of the velum palati or reappearing in other organs.

"The submaxillary ganglia frequently submit to the law of secondary invasion, which influences the lymphatic glands whose vessels proceed from parts affected with cancer.

"The degeneration is in general encephaloid, rarely scirrhus.

"*Diagnosis*: cancer of the tonsils can be confounded with hypertrophy or with syphilitic changes.

"If at the outset the cancer appears with the aspect of a benign hypertrophy, or if on the other hand the jagged appearance of the tonsil, the ulceration of the orifices of the lacunæ, can in a simple hypertrophy make one think of a cancerous degeneration, there comes a time when the presence of stony hardness, of sanious offensive ulcerations, of signs of cancerous cachexy or the progress of the malady allow its nature to be appreciated.

"The syphilitic changes of the tonsil most often confounded with cancer, are the gummous tumors at different periods of development, and above all at the time of their ulceration. And indeed it is an error with difficulty avoided in the absence of knowledge of the antecedents of the patient, or at least of the proof of a specific treatment.

"Another kind of syphilitic lesion can moreover be a source of error. It is the hypertrophy and the vegetation of plaques muqueuses of the tonsils."—*Nouveau Dictionnaire de Médecine et de Chirurgie pratiques*. Tome deuxième. (*Amygdales—Lésions organiques*.)

In our own case there seemed to be no doubt as to its being cancer. The growth of the tumor, as distinguished from the ulceration and waste of syphilis, was one marked point. The tumor of the tonsil doubled in three weeks. The gross and the microscopic appearances were submitted to several observers, who were of one opinion as to its being cancer. The enlargement of the lymphatic gland and the identity of its structure, under the microscope, with that of the tonsil, were other strong points indicating cancer. The whole aspect of the man was singularly free from syphilitic taint.

*Operative Interference*.—Dr. John C. Warren, in his work on Tumors, mentions two cases of "scirrhus of the tonsil." The first was ligatured by a wire. At the end of five days, after atrocious suffering, symptoms of tetanus appeared, and the ligature was removed. The tumor sloughed away.

The second was seized with hooked forceps, drawn forward and removed with the knife, and the mass in the pharynx was removed with a curved, probe-pointed bistoury. Finally, the actual canterly was applied. The patient recovered.

"Amygdalotomy has been practised frequently in cases of cancer of the tonsil. Velpeau performed this operation upon a man sixty-three years old, who had had a cancer of the tonsil for two years. The cancerous mass covered the velum palati in front, nearly filling up the pharynx; suffocation was imminent. Having laid bare the primitive carotid and passed under it a controlling ligature, Velpeau grasped the tumor with a double hook, drew it forcibly forward, then with a bistoury, the handle of which was fixed and the blade curved, he slit up the left side of the velum palati, and succeeded in extirpating the tumor. At the same time he removed a lymphatic gland affected with cancer, resting upon the pharynx at the lower portion of the parotid region. The patient succumbed seventeen days after the operation from pyæmia. The autopsy showed that all the cancerous element had been removed, and that the large vessels had received no injury. The same operation, but this time without a controlling ligature, was performed by Mason Warren. In a similar case, Demarquay, by means of an incision extending from the anterior border of the sterno-mastoid and terminating at the top of the larynx, laid bare the vessels and nerves which came in contact with the diseased tonsil, and was able to hold them aside, while an assistant managed the *écraseur*, and thus performed the extirpation of the cancerous mass."—*L. A. de Saint Germain*.

There can be little doubt that in this last case the *écraseur* was applied from within the mouth, although the description is obscure.

Removal by external incision is a dangerous operation, on account of the depth of the wound, and the proximity of the internal carotid artery. Numerous and important nerves cross our path, also, as the hypoglossal, the gustatory, glosso-pharyngeal, and the superior laryngeal. Operating from within the mouth we have the danger of swelling and sloughing, and of

hæmorrhage beyond control. By attacking the tonsil from without, we have no inconvenience to fear after the primary dangers of the operation, except the risk of a pharyngeal fistula.

Our cases of œsophagotomy, however, have demonstrated that openings into the gullet close readily. The case above reported closed earlier than the wounds of the œsophagus, partly because the opening was higher up, and partly because the pillars of the palate closed the fistula by a valve-like action of their own.

The facility with which the tonsil can be enucleated with the finger is surprising. The following anatomical peculiarity, however, explains the reason pretty well:

"Perhaps the most important point of the anatomy of the tonsils, next to their proximity to the internal carotid artery, is the fibrous semi-capsule described by Chassaignac, as follows: 'When one has enucleated a well developed tonsil, and examined with attention its external and internal surface, he does not hesitate to declare that the external, or adherent face, is covered with a fibrous semi-capsule, well circumscribed, independent of the neighboring aponeurosis, and resting on the cellular tissue.'"

"The arteries of the tonsil are large compared with the size of the gland; they come from the ascending pharyngeal and the inferior and superior palatine arteries."

We desire, in the report of this interesting case, to express our appreciation of the aid we have received, in the history of the disease and other points, from Mr. F. W. Draper, House-surgeon, and Mr. C. B. Brigham.

#### MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY.

Some Cases in the Service of Dr. B. JOY JEFFRIES.

*Congenital Cataract, Double.*—A woman, aged 24, has congenital cataract, nystagmus and convergent strabismus. Vision enough to go about where acquainted. Oct. 30, 1867, iridectomy downwards on right, and, Nov. 12, 1867, same on left, preparatory to extraction. By these, vision not much improved, and in reference to optic nerve atrophy there was a doubt as to extraction; however, five months afterwards, a corneal cut was made with iridectomy-knife in left eye, and with forceps capsule torn away, and cretaceous mass size of four pins' heads from centre of pupil. Patient suffered from abscess on finger, &c., and absorption kept up consid-

erable irritation; yet in two weeks patient fixed with this eye, although there was still some *débris* of lens and capsule. April 13, 1868, patient counts fingers and goes about readily, greatly gratified with improvement of sight. May 14th, 1868, same operation done on right eye. A little vitreous presented, but pupil was cleared. Patient had considerable pain, yielding to morphine. By May 31, 1868, can bear light; pupil quite clear. June 5, 1868, with  $+2\frac{1}{2}$  reads Jäger 14, and with  $+\frac{1}{2}$  tells fingers at 7 feet. Both optic papillæ and fundus oculi now seen. The papillæ are irregular, as also retinal vascular distribution; no apparent disease. Oct. 14, 1868, patient reads Jäger 14 with any glass from  $+\frac{1}{2}$  to  $+\frac{3}{4}$ , and makes out Dyer's X L at 20 feet. The absence of a white cataract filling the pupils, the steadiness of the globes and much improved vision greatly alter the appearance and comfort of this patient. The case is very instructive as to what we may have behind a congenital cataract, and how much even a by no means normal retina and nerve may serve to convey impressions to the brain. The distinction of color was good, the patient having won a new bonnet by selecting it, after operation. A brother and cousin also have congenital cataract.

*Enucleation.*—A domestic, aged 21, has large staphyloma of left eye, at junction of cornea and sclera. Some pain and sympathetic irritation of other eye. Rupture of staphyloma threatening. Patient desires enucleation for cosmetic effect, and also on account of trouble of other eye, "weakness." Oct. 30, 1867, globe enucleated. On section, lens clear; old pannus of cornea; choroid pale, and too readily separable from sclerotic; vitreous clear; staphyloma thin, and bulging irregularly. Vision had long been gone in this eye. Two hours after operation patient had no pain, and wanted food. Patient discharged on fifth day. One month later, patient came wearing false eye, with very perfect deception and considerable movement.

*Cut through Cornea.*—A boy, aged 12, in passing a mill hand, has one third of cornea cut through by end of a piece of wire the workman was pulling from a machine. Scratch on face shows direction of cut. Patient applied to a physician, who said "sight was running out," and applied caustic. Now, Nov. 11, 1867, great pain and ciliary redness. Pupil, irregularly dilated with atropine, showed synechia posterior and traumatic cataract. Leeches, atropine and rest abated symptoms, and

patient was discharged, Nov. 22d, with synecchia posterior and traumatic cataract not then in condition to remove. It seemed almost impossible that the end of a wire could cut open the cornea so cleanly.

*Iridectomy.*—A man, aged 24, pretty well run down from graduation at rebel prisons, has opacity of two thirds of cornea of right eye. Constant pain and some sympathetic irritation; for this iridectomy was done inwards. Iris rotten, and removed all possible. Lens seen opaque and soft. Punctured, and flowed off the consistency of pus, and of sago-like color. This, March 28, 1868; no subsequent pain, and eye "never so quiet." April 1, patient going about, and can see window. April 4, patient discharged. The whole probably sequelae of ulcers of cornea and irido-choroiditis from starvation and exposure in Southern prison stockades.

*Distichiasis Operation.*—A woman, aet. 23, has distichiasis of both upper lids and ulcer of right cornea. Patient in poor condition, but improved by treatment, and ulcer healed. In two weeks, right upper lid "scalped," and two bunches of hair dissected from left upper lid. April 23, 1868, patient discharged, well. These eyes would have finally been destroyed, as many others have, from lack of this simple and very effective operation.

*Cataract.*—A man, aged 79, has double cataract. Some debility, rheumatism in back, troublesome right inguinal hernia. April 14, 1868, left lens extracted by Graefe's method. Lens large and hard; some cortical removed with David's spoon. Discharged, May 5, 1868, with pupil clearing. Sept. 22, 1868, patient returned for glasses.  $V = \frac{1}{3}$  at 20 feet, or 10 feet with  $+\frac{1}{4}$ . Reads Jäger 6 at 7 inches with  $+\frac{1}{4}$ .  $+\frac{1}{2}$  ordered. Success better than anticipated in so old and weak a person.

## Bibliographical Notices.

*A New Operation for Artificial Hip-joint in Bony Ankylosis, illustrated by two Cases.* By LEWIS A. SAYRE, M.D., Surgeon to Bellevue Hospital, Professor of Orthopaedic Surgery, &c. &c. Re-printed, &c. Pamphlet. 8vo. Pp. 39. New York: D. Appleton and Co. 1869.

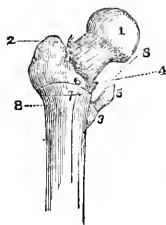
These cases are re-published from the *New York Medical Journal* for January, 1869, where they are re-printed from the Transactions of the Medical Society of the

State of New York, with Preface and Appendix, says Dr. Sayre, "to vindicate scientific truth, and my own reputation" from "false statements" with regard to them in a "work" recently published.

The vindication is thorough and complete—we need not tarry to rehearse the process—the "slander" henceforth can trouble only its inventor.

As these operations are remarkable, and "the first of their kind," the description, which is not long, is worthy of repetition.

"My object was to go above the trochanter minor so as to retain the insertion of the psoas magnus and the iliacus internus muscles attached to the lower fragment, for the purpose of flexion; and by cutting out a semi-circular piece, thus —, with its convexity downward, and then rounding off the upper end of the lower section to more nearly imitate the natural joint, and give him a fair chance for motion at that point." The plan of the operation may be seen in the figure.



1, head of femur; 2, trochanter major; 3, trochanter minor; 4, line of insertion of capsular ligament (variable); 5, tendon of psoas magnus and iliacus internus muscle; 6, line of transverse section; 7, dotted lines indicating the rounding off of lower fragment after removal of segment.

This operation, designed by Dr. Sayre "for the purpose of establishing a new joint," was first performed on a man at the Bellevue Hospital, June 11th, 1862. The details and history are given with sufficient fulness in the pamphlet. October 12th he "left the institution well, and with very good motion" in the new joint. Late in December he walked to Dr. Sayre's office, and could go up and down the steps without difficulty. April 11th, 1863, the patient wrote from Kentucky "I can now 'rough it' a little without apprehension of having to suffer from it afterward. I can bear my whole weight on the limb without inconvenience, and can walk very well without other assistance than a walking stick." (Page 13.) When last heard of, Jan. 9th, 1869, he was in Idaho, writing to New York for a two-wheeled velocipede!

On the 6th of Nov., 1862, assisted by Profs. Peaslee and Raphael, and in presence of other professional gentlemen, Dr. Sayre performed a similar operation on a Miss L.

This case went on well so far as the operation was concerned. Its subsequent fa-



tality, however, became the source of the "slander," which Dr. Sayre has so triumphantly refuted. In its results, as displayed post mortem, this case is one of the most instructive ever recorded. Not only had a new joint, with synovial membrane, already formed, but it was furnished by an inter-articular ligament, answering in every respect to a new ligamentum teres.

The operation was performed Nov. 6th. On the 8th of Feb. following she got out of bed for the first time. "February 20th she begins to have more control over the movements of her limb by voluntary muscular contraction, and can bear nearly her whole weight upon it. The motions are nearly as perfect as those of the natural limb." p. 22. This patient, while progressing favorably and rapidly, "being able to bear her entire weight on the affected limb, with perfect freedom to passive motion, and gradual increase of control over the voluntary movements" so as to begin to walk around her room, was, early in April, 1863 (misprinted February), suddenly brought down by severe inflammation of the chest, caused by unwarrantable exposure. After a variety of complications and misadventures, the lungs gradually gave way to purulent degeneration and tubercular infiltration. She died May 12th, 1863, from these causes solely, as testified to by a dozen practitioners who attended the autopsy and examined the lungs, and who certify to the published account as "correct in every particular." (Prof. Raphael's letter on p. 37.)

The death of this patient, if it disappointed reasonable expectations from an operation in itself progressing well, brought to light through autopsy, what would never have been credited unseen, "how wonderful" (in the words of Dr. Bush who was present) "and how beautiful was Nature in this reproduction of even the ligamentum teres, in constructing the new hip-joint for the patient, imitating so well the anatomy of the normal articulation." p. 33.

"I made full examination," says Dr. Willard Parker, "of the limb operated upon, and the motion was *free* at the new joint. The parts were then laid open; the new joint consisted of a firm structure surrounding the point of operation, and made a capsular ligament. On opening this capsular ligament, the cavity was found to be lined by a synovial membrane, smooth and lubricated. Between the sawed surfaces of the bone an inter-articular ligament was found." Letter on p. 38.

That there might be no room for any one to think that the drawings were incorrect,

says Dr. Doyle who prepared the specimen for preservation, the specimen was taken while fresh to photographers, and the engravings were made from photographs.

The formation of the inter-articular ligament, which makes this case so interesting, proves to be analogous to the formation of artificial joint in ununited fracture, as happily shown in a case published, in a note at p. 30, in connection with the results of this post-mortem examination.

We commend Dr. Sayre's pamphlet to all interested in such investigations, or in surgical progress. B. E. C.

*Compendium of Percussion and Auscultation, and of the Physical Diagnosis of Diseases affecting the Lungs and Heart.*  
By AUSTIN FLINT, M.D. Fourth Edition.  
New York: William Wood & Co. 1869.

THE Preface says:—"This little compendium was prepared several years ago, by request of a medical friend who intended it for insertion in an annual Physician's Visiting Book. The latter publication was abandoned, and the compendium was published by itself. It has been found convenient in aiding to memorize physical signs, by the private pupils of the writer, and by others, and it has been re-printed in compliance with a demand for this purpose. It is designed, not as a substitute for works treating of auscultation and percussion, but, on the contrary, to promote the study of treatises which consider fully these and the other methods of physical exploration, together with the diagnosis of diseases affecting the respiratory organs and the heart."

The little book fulfils remarkably the purpose expressed in the Preface. We are glad to have it, and heartily recommend it to others.

TRAUMATIC FRACTURES OF THE LARYNX.—The functional symptoms of "Traumatic Fractures of the Larynx" are set down by Mr. William Stokes, of Dublin, as dyspnoea, facial lividity, pain. They are not invariably present.

The physical signs of these injuries are:—

1. Alteration in form of the neck.
2. Increase of volume of the neck.
3. Abnormal mobility of the cartilages.
4. Ecchymosis.
5. Crepitation.
6. Emphysema (rare).—*Dublin Medical Press and Circular.*

# Medical and Surgical Journal.

BOSTON: THURSDAY, FEBRUARY 25, 1869.

## MEDICAL WITNESSES.

*The Medical Testimony at the Trial of Samuel M. Andrews (December 1, 1868, et seq.), for the Murder of Cornelius Holmes, in Kingston, Mass., May 26, 1868.*

A MEDICAL man is called to a person who has been stabbed. The former examines the wounds as to their situation, depth, direction, and number, and as to the blood-vessels which may have been severed. If especially cautious, he notes these points in writing. Summoned into court to testify in the case, he reports what he has seen; and we presume that any opinions he may have formed as to the damage done to, and the risk incurred by his patient, as well as the general condition of the latter, he is bound to state if called upon. The fact of his having formed or not having formed such opinions, the court, we suppose, has as much right to demand from him as any other fact. He is in the position, and receives the fees of an ordinary witness.

But, here is a different case. A murder is supposed to have been committed. Some one is missing from the community in which he has resided. Search is made. Portions are found of a skeleton, which has been in great part destroyed. A piece of the skull is discovered, and is carried to one of our profession, not because he knows anything about the facts in the case, but because he is an eminent comparative anatomist. By means of the knowledge he has acquired by many years of zealous study, he is enabled to give the opinion that the skull from which came the fragment furnished him, corresponds in size and shape with that of the head of the missing person. The result of the investigation and calculation he has made, he testifies to before the jury as an *expert*, and he is entitled to a compensation proportionate to his labor and to the value of his opinion. In this respect, we take it, he stands somewhat on the same footing as the counsel employed in the case.

These illustrations, we believe, set forth

the distinction between the ordinary medical witness and the medical expert. The one simply relates the facts in the case as he may be cognizant of them; the other takes the facts as presented to him, and states his views as founded upon them; provided he accept the position of witness. He is employed by the counsel, on one side or the other; and, in our opinion, may virtually decline to be so employed if he choose. For we believe the expert-witness is usually summoned with his own consent. Or, if subpoenaed against his will, a plea of want of familiarity with the subject on which he is to be interrogated would doubtless secure his dismissal by the presiding judge. And, we take occasion to remark, he *should* thus avoid the witness-stand, unless fully master of the question on which the law in all its dignity pauses to consult him: he should do so on behalf of justice and humanity, of the honor of his profession, and of his own credit: or, he may find to his cost, when too late, that it is the duty of opposing counsel to make the so-called expert show what claims he may have to the responsible position which he assumes to fill. These latter remarks are parenthetical, and have no bearing upon the medical witnesses in the Andrews trial, where all were of high rank in their several departments.

Having directed our attention to the distinctions above alluded to, we are in a position to appreciate the testimony of the medical witnesses in the trial just referred to, as reported in a pamphlet printed at the office of the *True Plymouth Rock* newspaper.

The body of Cornelius Holmes had been found, with marks of violence on it, the 26th of May, 1868. The deceased had made a will in favor of Samuel M. Andrews the prisoner.

Dr. Henry N. Jones—sworn. Have lived in Kingston ten years. Saw Mr. Andrews on the morning of May 27th at my office. He was wringing and twisting himself. I asked him if he had hurt himself. He made no reply. I gave him ammonia, and he recovered. He said Cornelius Holmes had been murdered back of the cemetery. I said to Andrews let us go right down to the cemetery. He declined, saying he must go home and see

his family. He asked me if we had ever said anything about the will, and wished us not to mention it. He said he had told Mr. Newcomb about the will. I rode down to where the body was. Andrews rode with me as far as Stetson's corner. This was not far from seven o'clock in the morning. Edward Gray summoned a Coroner's jury of the persons about there, my name appearing among the others. Mr. Sampson moved the body, which was taken up, put into his express wagon, and carried to Holmes's house. The head was badly mangled, the blood dried upon the face. Some blood was flowing, and it continued to flow after [the body] was put into the wagon. There were a great many stones about, which were bloody—should say fifteen or twenty. The body was taken to Mr. Holmes's room and laid upon a bench for examination. I noticed nothing particular about the clothing. I unbuttoned some of the clothing about the neck. The arms were drawn up and the hands clenched, requiring great force to unclench them. The left fore finger was bruised. No other marks of violence except on the head. The jaws were set, and the tongue protruded through the teeth. The lip was cut through. The right ear bruised, and two wounds about over the ears where the skull was broken through. The wounds were made with some blunt instrument. A little back of the wounds, on what we call the crown of the head, the scalp was badly lacerated. The skull was broken, the brain was protruding, and I took out three pieces of bone, which I replaced when I sewed up the wounds which extended nearly from ear to ear. The wounds were then dressed to make [the corpse] appear as well as we could. The funeral was on Friday.

After the body was disinterred I was present with Dr. Henry J. Bigelow, of Boston, who made an examination. The skull bone was carried away by Dr. Bigelow. I saw Andrews at Holmes's house on Wednesday, 27th. He was before the Coroner's inquest, and said Cornelius had made him a good many presents. He said Holmes came to his garden through the cemetery, and he presumed he went back the same way, but did not notice. I saw Andrews again at his house. He spoke of the will, and said Mr. Newcomb told him to carry the will over to Mr. Damon at the Probate Office. I took out my watch and told him I thought he would have time to go that day. I saw him again at his house, and I gave him a morphine powder at his request. He said he was nervous or excited. Thursday he

came into my office and asked me if I could not give him something to take, he felt badly. I gave him a little whiskey. Before the decease of Cornelius Holmes, Andrews was at my house, and in presence of my family said he expected to be a rich man some time. Cornelius Holmes had made his will and given him lots of property. Said Cornelius came over to Plymouth and Mr. Damon made the will. He requested us not to say anything about it. Was Andrews's family physician. Not at his house often. He was at my house frequently, sometimes professionally and sometimes as a neighbor.

*Cross Examined.*—Andrews called at my house frequently. Sometimes perhaps once or twice a week, but sometimes perhaps not for a month. I had given him morphine before the death of Holmes. Have administered ether to him when he has had his headaches, or trouble about the eye. It was a sort of neuralgic affection. I think I have been called to Mr. Andrews three or four times to administer for this affection in the head. I think I was once called to him for bilious or sick headache. I do not recollect that he ever called at my office for medicine for himself. Was first called to his family in September, 1857. Jan. 16th, 1867, I was called to prescribe for Andrews for illness. Should think Andrews had been troubled with the headache. Think I have seen him with glasses on. Have conversed with my wife in regard to her testimony here yesterday. Heard notes read of my wife's testimony taken by Ellis Ames, Esq. This was at the house of Alexander Holmes last evening. The interview with Mr. Andrews with regard to the will was at my house, and in the evening. Have heard Andrews say, since Holmes left his house, that he had some of Holmes's silver ware to keep. When I first saw Holmes's body it was lying by the cart rut. Should think the soil might be a few inches above the top of the head. Saw several stones lying near the body. One stone near the head in the ground had a blunt edge, similar to [that of] a cold chisel. The stones extended both ways from the body some two or three rods. Saw Geo. F. Willis about the body, at the time it was found; think he took some things from the pockets. He was one of the jury. The skull was broken in upon both sides, and more particularly upon the back of the head. I prescribed ether for Andrews the morning after the murder, because I thought that this was most likely to make him feel better. Should say Andrews was *rather* a nervous man, not specially so. His reputation as a good citi-

zen, for humanity, and kind heartedness, was good generally.

*To Mr. Somerby:*—Should think there might have been five or six loose pieces of the skull.

*Re-examined by the Attorney General:*—Was at the house of Mr. Alexander Holmes last evening and heard Mr. Ames reading his notes to Mr. Holmes. Heard him reading my wife's testimony, and was interested to hear what it was.

Though the statements of Dr. Jones were valuable as those of a medical man, he simply related the facts of which he was cognizant in the case, having been subpoenaed as an ordinary witness.

We now turn to the testimony of the medical experts.

Dr. Henry J. Bigelow—sworn. Have been professor of surgery in Mass. Gen. Hospital 21 years. Saw the body of Cornelius Holmes in the Town Hall, Kingston. I had with me Dr. LeBaron Russell and Dr. Porter of Boston, and Dr. Jones of Kingston. The body was in a good state for examination, the wounds principally on the back of the head, on the left side. A short distance above the right ear, there was a detached wound. The upper lip was cut through. The scalp was very much torn, the head bloody, the wounds vertical and parallel, in the line of the neck up and down the body. You could pass your hand under the scalp and feel loose bones, some of them driven into the brain. Counted eleven detached pieces of the skull. Blood was found all over the surface of the membranes of the brain. The membranes of the brain were torn, and the brain largely torn underneath. There were slight wounds on both hands, and black and blue spots on the left shoulder and face. The internal organs were healthy. The top of the skull of Holmes was here exhibited by the witness, and the nature of the wounds fully explained. (The skull was shown to the jury, and the detached pieces of bone shown, most of them being now attached by wire.) At the time of the examination there was one piece missing,\* which is here identified. The wounds were by some blunt instrument. They may have been made with stones. The state of the skull indicated repeated blows. The blows, judging from the appearance of the skull, could not have been made from below upwards, but must have been made

when the skull was below the party striking. This was indicated by the parallel and longitudinal wounds on the back of the scalp. Blows inflicting such injuries as were indicated by the wounds on the side of the head would *stun* a man more or less, but might not deprive him wholly of his consciousness. A man found in the position in which Holmes was found must have been alive when he first came into that position. Found no wounds of consequence excepting upon the head. Anything like a pool of blood must have come from the head. Examined the brain of Holmes, which was perfectly healthy. The blood between the scalp and skull came from wounds inflicted on the head. A man might be able to cry out after the stunning blows on the side of the head. Such blows would reduce a man's strength, and might knock him senseless.

*To the Court:*—Should think the penetration of those pieces of the skull, must have produced death in a short time. He may have lived an hour or two.

*Cross Examined by Mr. Davis:*—The left thumb was injured, the tendon being cut. The side wounds were an inch or more above the ear. The notes which I dictated were taken by Dr. LeBaron Russell. There was on each side of the head a separate wound, indicating these wounds to have been inflicted from different directions. The principal side wound of the scalp was a star-shaped one, and made by a direct blow. The wounds on the side of the head might have been made, and still a man be sufficiently sensible to cry out. He would not necessarily have been insensible. Should say half a teacup full of brain may have been gone, perhaps less. Think it not unlikely the cut in the brow came from some hard substance on the ground under the head. A heavy blow upon the head might produce copious nosebleed.

*To Mr. Somerby:*—I mean to assert that such blows could not have been made from below upwards, in my judgment. The muscles of the arm are not strong enough to accomplish such a result, i.e., to comminute so greatly the back of the skull of a tall man while struggling, nor would the blows have been so symmetrical as the parallel slits in the scalp indicate. This is my opinion. Cannot tell exactly how many blows were necessary to produce such wounds as were found on this skull.

S. Dana Hayes—sworn. Am consulting and analytical chemist and State Assayer. On the 30th of May I received a vest from

\* This fragment had been recently picked up at the place where the body was found.—Ed.

officer Pratt, purporting to be the vest of one Mr. Andrews of Kingston. [Identifies the vest.] I retained this vest for several days, and early in June Dr. White and myself examined it; we cut it, Dr. White taking part, and the remainder I retained. One piece had a clot of blood upon it. Dr. White and myself divided this piece equally; compared it with blood said to be that of the murdered man, and found it exactly similar; compared it with sheep, chicken, and oxen's blood, and found it entirely different. Other clothing was brought to me, which I here identify by marks made upon it; found blood upon pieces of the coat and pantaloons. Identifies the fence rail, before sworn to by Macoy; found upon this, blood precisely the same as found upon the vest. Identifies a pair of shoes and a gray hair taken from one of the shoes.

Dr. J. C. White—sworn. [A good deal of Dr. White's testimony was too scientific to be reported. The remainder, we are authorized to say, was to the effect that blood-stains, grey hairs, and pine-needles were found in the breast pocket of the deceased. Two of these stains had not penetrated through the cloth, &c. &c.—*Ed.*]

Dr. Hayes re-called.\*

*Cross Examination*:—The examination of the rail was made entirely by the microscope, and was not subjected to chemical analysis.

Thus far the medical testimony is beyond cavil. We deem it well worth reading for the clear picture it gives of the things described. And, it suggests to us in passing an incidental question. It tells us that the head of the deceased was battered by blows, which must have been, in part at least, from above downward; as when the victim lay prostrate, perhaps. Some of these blows may have been dealt with the bloody stones found in the vicinity. But, that which felled him—from whatever direction it may have been struck? On the theory of premeditated murder, did the assassin trust to the stone with the "blunt edge" to strike his victim prostrate, or

was some other instrument used, such, for instance, as a slung-shot or a hatchet?

Subsequently to the foregoing, the statement of the prisoner is put into the case. He confesses taking the life of Holmes, but claims that it was in self-defence while resisting a *felonious assault* on the part of the deceased. It would appear that, lest he should be convicted of murder or manslaughter, on the ground that he used more violence than was necessary for self-defence, his counsel attempted to set up the theory that he acted under the influence of a paroxysm of insanity. Here, then, is brought in the testimony, as experts, of gentlemen prominent before the community in dealing with problems of mental unsoundness. In these intricate questions there is doubtless much room for differences of opinion. At all events, we find Dr. Jarvis and Dr. Choate opposed to each other on the witness-stand.

Dr. Edward Jarvis—sworn. Reside in Dorchester. Am a physician. Have practised 39 years. Have had private patients with me for many years in reference to their being insane. Insanity of ancestors leaves the posterity more likely to be insane. If insanity extends through several generations it is more likely to be transmitted to posterity. People sometimes become insane suddenly. The number as compared with the whole number that becomes insane, is few. There are many records of cases of sudden insanity which are often brief, and the mind soon returns to its sane condition. At the time the moral sentiment seems to be obliterated. A homicidal mania is supposed to be more likely in persons whose ancestors were insane.

[A long discussion occurred relative to the testimony of this witness in regard to hypothetical questions, and much of the testimony was (concerning—*Ed.*) opinions which have been read in books, and could have little weight with the jury.]

[Recess for ten minutes. On the re-assembling of the Court, and suggestions in regard to the testimony, the examination of Dr. Jarvis was resumed.]

Have heard the evidence in this case and it tends to the suspicion of insanity. Visited the prisoner Thursday, when he made an exclamation and his pulse was 132. It indicated great anxiety.

*Cross Examined*:—Do not think the prisoner at the bar is insane to-day. The doc-

\*The report of Dr. Hayes's testimony is so brief and lucid that we did not request to have it verified. The practical result of Dr. White's investigation, we by his authority state in the text. The other *experts* have most kindly corrected the accounts here given of their statements in the witness-box, so far as errors (and there were *flagrant ones*) are concerned. As they now stand, nevertheless, we are apprised that these reports are not complete; but, we think they may suffice to give an adequate idea of the leading facts and opinions in the case.

trine of transitory mania is held by many physicians. Have seen nothing in the progress of this case to induce me to believe the prisoner was ever insane before the night of the murder, nor up to the time when Mr. Delano left his garden on the evening of May 26th. Saw no evidence of insanity when he was in Mr. Wormell's room nor when he walked home with Mrs. Peckham; nor was he insane in my judgment during the three days following the death of Holmes. Provided his testimony be true, I think he had a paroxysm of mania which passed off with the struggle. Think he was coming out of his insanity when he stooped to pick up his hat. Insanity may appear for ten or twenty minutes when it had never existed before, and never exist afterwards. This is a physical disease of the brain—a functional disease. It affects the mind. In this case, I should think it would have been in the prisoner's favor if he had come out and owned it and given himself up.

Have had occasion to see, examine, or treat two or three hundred insane patients during my life; there is a susceptibility to insanity in children, whose parents are insane. Do not know what proportion of the children of insane parents become insane.

Dr. Jones—re-called by the government. Never saw anything during my attendance on, or acquaintance with Mr. Andrews indicating insanity.

Dr. George S. C. Choate—sworn. Am superintendent and physician of the Taunton Lunatic Hospital; have been for 15 years, and have had charge of between three and four thousand patients. The question was then asked, What, in your opinion, are the material points in the case bearing on the subject of insanity, and what does each point have for or against insanity—hereditary insanity? Answer—The only point which appeared in the case to suggest an inquiry into the mental condition of the prisoner was the fact that his mother and some more remote relatives were insane, and transmitted to him a liability to have the same disease; insanity follows the same law as other diseases in the mode of transmission; a child born of insane ancestry inherits not the disease, but the same constitution rendering it liable to the same disease, if favorable circumstances arise for its development; the fact follows from this that the existence of insanity in ancestry proves liability only and not the disease. However strong the proof may be of hereditary pre-disposition, if it stands alone by itself, it is of no value whatever; it may

become important, however, in confirming direct testimony in a nicely balanced case; that direct testimony I do not find in the history of this case. If a man under close observation manifests no symptoms of insanity up to within fifteen minutes of an act of violence, and again under observation manifests no symptoms of insanity from a time fifteen minutes after the act, it would be conclusive to my mind that the act was not the act of mental disease; I have never known, and I do not believe that there exist cases of insanity, originating and terminating in a single act of violence. When an insane man commits an act of violence he acts either without a motive or from a *diseased motive*. The effect of a diseased motive is the effect of a delusion. The sane criminal acts from one of the ordinary motives of crime, either the gratification of some passion or the attainment of some personal advantage. The selection of time and place is an important element in forming an opinion as to the character of the act. The insane man who commits an act of violence does not choose time or place. He frequently commits the act in public, at noonday. The sane criminal, on the other hand, chooses darkness and seclusion. The conduct after the deed has an important bearing on the question of insanity. Ordinarily the insane do not conceal, and will often proclaim the deed of violence they have committed. The sane criminal almost invariably endeavors to conceal it. The Court asked the witness this question—Assuming the statement of Andrews to be true, would you consider him sane or insane? Answer—while I would not pretend to reconcile the statement of Andrews with the conflicting facts in the case, yet on the whole I should consider him sane. The preponderance of the facts excluding insanity was so great as to overbalance any doubts which he suggested by his statement.

We do not attempt to pronounce upon, or criticize the conflicting opinions above reported. To do so would be to assume ourselves experts in the science of insanity. We add that we hold any man in high honor who stands ready to promulgate views, scientific or other, which run counter to the current of sentiment among his cotemporaries. But, we respectfully submit that where one eminent in a particular branch of medical science takes a position supposed to be in opposition to that of his immediate *confrères*, and one which seems

extraordinary, to the great body of the profession, we may perhaps reasonably ask for some explanation. Can a man be admitted to be insane, for a few minutes, just long enough to commit a crime, though always perfectly sane before and after the act? We think it would be highly satisfactory to our medical community to be put in possession of the test cases, and the reasoning thereupon, which may have led to the affirmative of this question. It strikes us as the more desirable from the tenor of the following passage from the charge of Mr. Chief Justice Chapman:—

“The prisoner is a witness, and testifies as to his state of mind when he did the act. There are two things to be inquired into on this point. (1.) Assuming his statement to be true, does it prove that bodily disease had suddenly attacked him, or that he acted under the impulse of passion that became blind and furious? If it was the latter it was not insanity, and he must seek for an excuse on some other ground. On this point the opinions of the two experts are given. Dr. Jarvis testifies that the facts would indicate a maniacal paroxysm. Again he says, in regard to the prisoner's statement, ‘the facts tend to suspicion of insanity.’ He says the act of killing is itself no evidence of insanity; and it would in fact give to crime perfect impunity if the commission of crime were to be regarded as evidence of insanity.

“It is proper, also, to say that if a homicide is committed with circumstances of cruelty and atrocity, the cruelty and atrocity do not of themselves tend to prove insanity. Our statute treats these circumstances as raising the crime to murder in the first degree. And if such circumstances were regarded as evidence of insanity, it would furnish an inducement to every murderer to act with as much cruelty and atrocity as possible, in order to furnish proof that he was insane. But if the act is done without any assignable motive, you look more readily to insanity as its cause than if a strong motive were proved.

“I have spoken of the opinion of Dr. Jarvis that there might have been a sudden attack of insanity that came on without any premonition and led to the murder, and departed as soon as the murder was committed, leaving no trace behind. The opinion of Dr. Choate is directly contrary to this.

“He regards such a kind of insanity as unheard of and impossible. As insanity

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arises from bodily disease, he thinks it could not come on so suddenly, rage so violently, and then totally disappear.

“You are to judge of these opinions. The opinions of experts are mere evidence for the jury to consider, in connection with other evidence. The responsibility is, after all, on you to say whether the prisoner is guilty, or is not guilty by reason of insanity.

“I think the opinions of experts are not so highly regarded as they formerly were. For while they often afford great aid in determining facts, it often happens that experts can be found to testify to any theory, however absurd. The experts before you are gentlemen of learning, and you must judge between them.”\*

Since completing the foregoing remarks, with the quotations annexed, we have received the favor of the following letter from Dr. Jarvis, in reply to a note asking him to correct any flagrant errors in the report of his testimony. It is gratifying to perceive that Dr. Jarvis had anticipated what we presumed to be the general desire of the profession. We shall cordially welcome his proposed paper to the columns of the JOURNAL, and we trust it will be none the less acceptable for this preliminary sketch.

DORCHESTER, MASS., Feb. 1st, 1869.

*To the Editor of the Boston Medical and Surgical Journal.*

Dear Sir:—[The printed] report of the trial of Andrews reached me Saturday evening.

The report of my testimony is very incomplete, and gives a very meagre and unsatisfactory account of my opinion and statement. My evidence on the chief examination was given under the continual interruptions of the attorney general, who first objected to the use of my testimony entirely, and when overruled by the court, made it as brief and fragmentary as possible.

That which I gave in the cross examination was simply in answer to his specific questions, with no opportunity for fullness of statement or explanation. I have here done what you requested, and corrected the manifest errors in this report, but made no additions.

It has been my intention to write, for your JOURNAL, a paper on Transitory Mania, showing the opinions of the German, French, English and of some American authorities on

\* His Honor has done us the great favor of writing out for us this portion of his remarks, from his own minutes. The newspaper report is inaccurate.

this subject, and in this connection give an account of the Andrews case as illustrative.

The doctrines given by Marc, Esquirol, Castelnau, Duvergie, Maudsley, and also by Woodward and Bell, and admitted by Ray, are:—

1. That mania may appear suddenly without forewarning.

2. That it may manifest itself in a single act of violence.

3. That this act of violence may be rather in obedience to the cerebral excitement than for any specific purpose, and may therefore go beyond what would be necessary for its accomplishment; as when a French woman not only stabbed her child many times, but cut off its head. The Juris-consults held that this excess of injury was evidence of mania rather than of mere intention of murder.

4. That this mania may suddenly cease and leave no trace behind.

5. That, during the paroxysm, the maniac may be unconscious of his acts.

6. That afterwards he may have no recollection of his maniacal acts.

7. That when he returns to sanity, he may have no conscientious feelings of guilt for his maniacal acts, whatever they may have been.

Admitting the truth of Andrews's statements in prison and of his evidence in court, these conditions existed in his case. . . .

Very truly yours,

EDWARD JARVIS.

RICHMOND, IND., Feb. 19th, 1869.

MR. EDITOR,—Last May, in Washington, after the American Medical Association decided to hold its next meeting in New Orleans, I promised several eastern gentlemen to see if an arrangement could not be made for a first class steamer to take all who desired to travel that way, from Cairo to New Orleans, in good style and upon reasonable terms. My correspondence with the Mississippi steamboat men warrants me in saying that an arrangement for a party of that kind can be made, and I will be able to publish the terms by the first of April. Perhaps it might interest some of your readers if you were to say that such an arrangement is likely to be consummated.

The time from Cairo to New Orleans will be about four days, and the fare not to exceed \$35 from Cairo to New Orleans, and return, and this includes meals and state rooms. Perhaps better than this can be done, but as soon as I learn what the best terms are that can be made I will advise you.

Prof. Gross and others thought that if all or most of those going down the river could get on a first class boat the trip would be less tedious, and perhaps both pleasant and profitable.

Provision upon like terms will be made for ladies who accompany the doctors.

Very truly, &c.,

JAS. F. HIBBERD.

N. B.—We do not hold ourselves responsible for the opinions or sentiments expressed in articles we print as contributed or addressed to this JOURNAL. Newspapers which may have noticed any paper which has appeared in these columns will confer a favor by inserting the above.—EDITOR BOSTON MEDICAL AND SURGICAL JOURNAL.

THE following memoranda of interesting points which came up at the last meeting of the Suffolk District Medical Society, were obtained from the minutes of the Secretary, Dr. John Homans:

Prof. J. B. S. Jackson showed a pair of kidneys affected with cystic disease, weighing 10½ pounds, from a patient 56 years old. No full history of the case was obtained. Dr. J. remarked, that in every case of this disease that he had seen, the symptoms of renal disease were absent. The most marked case of granular kidneys he ever saw occurred in a strong, healthy teamster, who died by an accident. Both kidneys were always affected. He had never seen any specimens to compare with these.

Dr. H. I. Bowditch related a case of empyema of left chest, with dulness, great dyspnoea and failure of strength. The patient was sick five weeks; paracentesis relieved him of 4½ pints of pus, after which the lung recovered its resonance, and the boy is now doing well.

Dr. A. B. Hall related a case of the retention of a piece of lead in the bronchi for three years.

Dr. Heaton gave a similar case, of retention for seven years.

Dr. Jackson spoke of the ease with which a bit of grain, assisted by its beard, would work its way into the larynx and trachea, and, not stopping there, would frequently penetrate into the ultimate bronchules, and thence by ulceration, out through the integument, just below the clavicle. The rule is recovery. An iron nail had been reported as following the same course.



**LARGE LOOSE CARTILAGE IN THE KNEE-JOINT.**—A case of unusually large loose cartilage in the knee-joint, treated on the antiseptic system, under the care of Mr. Lister, is reported to the *Glasgow Medical Journal* and also to the *Dominion Medical Journal*, by Archibald E. Malloch, M.B., House-Surgeon to the Glasgow Royal Infirmary.

W. E., aged 20, was admitted into the Royal Infirmary on the 28th of June, 1868, complaining of slight lameness, of a "lump which moves" in his right knee, and at times of slight pain in the joint, especially when carrying any heavy article. A loose cartilage, about the size of a half-crown piece, was felt and moved freely about in the joint. The previous history of the case is interesting, as pointing apparently to its origin from the fringed processes of the synovial membrane. He dates the beginning of his complaint eight months back, when he strained his knee. . . . . Three weeks after the accident, while rubbing his knee with a lotion which he had got from a doctor, he felt a "small hard lump," about the size of a marble, above, and to one side of his knee-cap, which he could move to a slight extent from side to side. This "hard lump" increased gradually in size, and got proportionally freer in its motion, and could at all times be felt. About four months after the accident the "hard lump," which was then nearly as large as at present, could be felt at times in front of the joint on either side of the knee-cap, below which it occasionally disappeared. During the last four months it has increased in size, and is at times "lost." On ten or twelve occasions he was suddenly stopped short while walking, from inability to straighten his right leg. He would then have to sit down, and, by movements of the joint, free the "hard lump" which, he thinks, must have got between the bones. This displacement was attended with slight pain, and was followed by increase in the size of the joint.

Professor Lister determined to perform the direct operation, as the subcutaneous method would be difficult, if not impossible, from the large size of the cartilage, while he felt confident that on the antiseptic system the joint might be freely opened without risk.

On the 2d of July the cartilage was extracted. The instruments were dipped in a solution of one part of carbolic acid in six of oil. The same solution was dropped

into the incisions as fast as made. While the synovial cavity was being opened, the orifice was curtained with a sizable piece of lint wetted with the solution in order that air regurgitating into the wound might be impregnated with carbolic acid. After the operation fresh pieces of lint soaked with an oily solution of carbolic acid (one part to ten) were placed over the wound, which was left gaping to give exit to effusions. The lint was covered with cloths, which had been dipped in the solution, and lastly carbolic acid plaster enclosed the preceding application, and in turn was covered with a folded towel held in place by a bandage.

"The loose cartilage was one and a quarter inch long by one inch in greatest breadth and a quarter of an inch in greatest thickness, round at one end and more pointed at the other; one surface smooth, the other irregular with a sort of corrugated appearance."

Within the cartilage was found a layer of true bone.

July 4th.—Discharge upon the towel a minim or two. July 5th.—Two or three drops of serum. July 7th.—During last forty-eight hours discharge of about six minims of a sero-sanguineous fluid. July 11th.—Wound found to be "a granulating sore."

"July 12th.—The joint has remained free from pain except when he moved it, when 'he felt it a little.' Has slept well and eaten his food with his usual relish. The wound is somewhat more open, and there is a good deal of effusion in the joint, but no redness. Dressings, as yesterday, repeated; pulse 70; tongue clean. It appears that since his bowels were moved, two days after the operation, he has walked each day to the water closet. This circumstance, which was quite contrary to orders, probably explains the slight irritation of the joint."

July 15th.—Granulations touched with sulphate of copper.

"August 12th.—The patient left the Infirmary, with the wound quite healed, and the movement of the knee perfect.

"Sept. 19th.—The patient states that he worked the day after leaving the Infirmary, and felt no pain in the joint; the following day, however, it was much swelled; that he has worked every day since, and has not suffered any pain. There is still a little effusion in the joint, but no lameness."

Carbolic acid dressings were continued from the time of operation till the wound was healed.

THREE cases are reported from Australia, in the *London Medical Times and Gazette*, of *snakebite* treated by Prof. Halford's method. All three had previously been treated locally by the patients themselves. One patient had sucked the wound, and applied ligatures above the bitten finger. The second had merely pricked and incised the wound. The third had sucked the wound and used the ligature. The first mentioned had the remedy applied promptly, and got no further than extreme drowsiness, when she began to rally. The second passed into a state of extreme stupor, from which he soon awoke after the second injection of ammonia. The third was comatose, but "in a very short time" after the ammonia was thrown into a vein, became sensible.

The second of these patients had the "liquor ammoniæ fortis" injected into the saphena vein, and beneath the skin elsewhere; in all, about (12) minims.

Prof. Halford mentions, with reference to this case, that the liq. ammon. fort. should be diluted before injection in such cases with two or three times its quantity of water, and of this mixture from twenty to thirty drops should be injected into one of the larger veins. The syringe, he adds, should be carefully introduced, so as to give the ammonia a fair chance. He disapproves of merely throwing the injection under the skin, and believes that after the injection of ammonia there is no necessity for resorting to the use of stimulants."

**CARBONIC OXIDE.**—One more *quære* we would offer with reference to the French experiments upon cast-iron stoves *versus* carbonic oxide. Was *anthracite* coal burned in the stoves, or the bituminous coal commonly used in France?

At the recent Annual Congress of German Naturalists and Physicians, in Berlin, in the section for Midwifery and the Diseases of Women, a discussion took place on the local treatment of the womb and its cavity by sounding, intra-uterine pessaries, dilatation, incision, injections, &c. Prof. Credé, of Leipzig, said that he had seen bad acci-

dents caused by the introduction of the sound, such as spasms, fainting fits, severe pain, hæmorrhage and inflammation, especially in hysterical women. He could not recommend the extended use of intra-uterine pessaries, and of laminaria and spongetents he had only rarely seen good effects. Incision of the cervix had proved useful in his hands for menstrual colics and sterility, but the patients ought to be carefully watched. Injections he had quite given up, as they seemed always to cause inflammation and severe pain. Prof. Hegar, of Freiburg, said his results with all the procedures mentioned were more favorable. Injections into the cavity of the uterus he only used for hæmorrhage, especially after abortion. Dr. Kristeller, of Berlin, said it was not necessary to be very timid in these matters. Since employing Marion Sims's speculum, he had never seen bad accidents after injection; he preferred, however, to apply remedies by means of camel-hair brushes and cotton to the diseased parts. He often used the sesquichloride of iron and pyroligneous acid, without any trouble afterwards.

In the section for Infantile Diseases, Prof. Ebert, of Berlin, spoke on temporary blindness in the course of acute infectious disorders, such as typhoid fever and nephritis scarlatinosa. The patients lost their sight suddenly, and regained it as suddenly, within from twenty-four to forty-eight hours afterwards. There was neither congestion nor inflammation of the retina, nor paralysis, such as we observe it after diphtheria. In one case which ended fatally, the brain was found highly œdematous, and he thought temporary œdema of the centre was the cause of the blindness in the cases mentioned.

In the section for Lunacy, Dr. Meschede, of Schwetz, read a paper on heterotopy of the grey matter in the medullary fibres of the cerebellum, in an epileptic lunatic; after which Dr. Jessen spoke on physical double perception, which was owing to temporary incongruity of the action of the two hemispheres, whereby a double perception was caused, the weaker one of which was confounded with a reproduced perception of recollection.—*London Med. Times and Gazette*.

In the *London Medical Times and Gazette* a Case of Larval Tapeworms in the Human Brain is reported by C. Lawrence Bradley, F.R.C.S., surgeon to the Pentonville Prison. The patient had phthisical

symptoms with diarrhoea, and died from exhaustion. The *post-mortem* examination gave the following results:—Body emaciated. Head: Pachionian glands considerably developed, thinning the dura mater and indenting the calvarium in the mesian line. Subarachnoid effusion upon the surface of the hemispheres. On removing the pia mater numerous cysticerci were discovered packed separately between the convolutions of the hemispheres. They appeared as bladders distended with fluid, the size of filberts, some transparent, others more or less opaque. There was one in the meshes of the choroid plexus in each lateral ventricle, and one in the third ventricle, smaller ones also between the laminae of the cerebellum. Altogether, I estimated their number at twenty. There were none found in other organs. The lungs were tuberculous, but without vomicae.

The case is interesting from the entire absence of cerebral symptoms, for during the period referred to the prisoner never complained of pain in the head, giddiness, or other symptoms of cerebral irritation, and he retained his mental faculties unimpaired until just before his death.

CASE OF COMPLETE EXTIRPATION OF THE TONGUE, FOR EPITHELIAL CANCER, WITH CLINICAL REMARKS. By GEORGE F. FENWICK, M.D., Professor of Clinical Surgery, McGill University. . . . On Friday, the 20th of November, 1868, the patient—A. B., aged 45—having been put under the influence of chloroform, the operation was performed by Dr. Fenwick, assisted by Drs. Campbell and Bell (of Ottawa). The steps of the procedure were as follows:

An incision, about one inch in length, was made below the chin, exactly in the mesian line, through skin, fascia and muscle, down to the floor of the mouth; a very long curved needle in a handle was then passed through this into the mouth, emerging to the right of the frænum linguæ and close to the root of the tongue—this needle carried a strong thread to which was attached the chain of the *écraseur*. The chain of the *écraseur* thus introduced into the mouth was passed completely round the base of the tongue, being pressed back as far as possible by Dr. Campbell. The tongue was then transected by a strong cord and drawn well forward out of the mouth. The instrument was locked, and constriction immediately commenced. Fifteen seconds was allowed to elapse between each click, and at the end of nine minutes

and thirty seconds, the operation was found to be complete. The organ was then removed from the mouth by the attached cord and the operation was finished. The bleeding throughout was very slight indeed. On examination of the tongue it seems as if all the parts cut through were quite healthy.

He was put to bed and kept supplied constantly with small pieces of ice in the mouth. By 10, P.M., whatever oozing there had been during the day had entirely ceased.

Dec. 1st.—Leaves the Hospital to-day. He can now readily swallow such food as soft boiled eggs, &c. He can articulate wonderfully well, being readily understood in almost anything he says. The wound has nearly all cicatrized over.

Subsequently Dr. F. had heard from his patient through Dr. Bell, of Ottawa. The tongue had entirely healed, he was able to swallow solids, and his speech was daily improving. His general health was very good, but on the right side of the neck the sub-maxillary glands had become swollen and inflamed. This was attributed by his surgeon to cold which followed after a drive into the country.

VERTICAL DISLOCATION OF PATELLA. By J. F. NOYES, Professor of Ophthalmology in Detroit Med. College.—About two months ago I was called in haste to see a healthy-looking young girl, eleven years old, whom I found suffering from an injury to the knee. Walking along the sidewalk, she said, she had slipped, and fell, striking the “kneecap” against the edge of the curbstone. On getting up, she could not bend the knee, it pained and hurt her so much. On examination, I found the leg flexed and fixed in that position. The patella was turned round on its lower axis, so that its inner edge rested on the outside of the trochlea of the femur, and its outer edge presented immediately under the skin, forming a hard, prominent ridge, with deep depressions, existing upon each condyle, and the extensor muscle in a state of extreme tension.

The objective signs in this dislocation were characteristic and unmistakable. . . .

Most surgeons appear to agree, if I mistake not, that the reduction of this luxation is to be accomplished by first flexing the leg and thigh strongly before extending it, and, indeed, it appears to have been accomplished by flexion alone. A case is related in Sir Astley Cooper’s work. It is stated there that Mr. Mayo, the surgeon,

overcame the difficulty by bending the knee to the utmost, so that the patella was drawn entirely out of the groove in which it was lodged.

But it does seem unreasonable to advise an attempt at reduction while the leg remains flexed, or the bending of the knee previous to extending it, since this must increase the tension, and thus add to the difficulty. Acting in accordance with such advice, however, I attempted at first the reduction in this way, that is, by applying force to the bone, while the leg was in the flexed position in which I found it; but I failed in the manœuvre—the patella would not budge at all—it remained as firm and immovable as if it formed a part of the femur itself. It now occurred to me that if I should with sufficient force very suddenly extend the leg from its then existing position to the very utmost, and by so doing get the advantage, or in advance, so to speak, of any contraction of the quadriceps, I should most likely accomplish my object. This I did in this manner: placing my left hand above the “kneecap,” with the other I brought the leg suddenly and quickly out into a straight position, when, with a gentle push with the left hand, the “kneecap” went into place with ease, and to the great relief of the patient, and in a few days she was walking about again, as well as before the accident.—*Detroit Rev. of Med. & Phar.*

A HOSPITAL patient in Dublin, who was in advanced phthisis, was suddenly attacked with hæmoptysis, and discharged about a pint of dark-colored blood; he complained that he was suffocating, and in less than five minutes he was dead. . . . At the autopsy, the left lung was found to be extensively solidified, and in the apex were found two large cavities; these communicated with the bronchial tube by an abrupt termination of the latter; both contained dark clotted blood, but the posterior of the two was distended with it; and on carefully examining the cavity, he found a large vessel eroded, and hanging by one extremity into the cavity. He could pass a probe through it with facility; a little plug was found in the open vessel. The bronchial tubes were full of blood.—*Dublin Medical Press and Circular.*

ABSCESS NEAR THE RECTUM AND FISTULA IN ANO.—Mr. Holmes Coote, Surgeon to St. Bartholomew's Hospital, in an article on this subject, in the *Dublin Medical Press and Circular*, says:—

“How should we treat the fistula? In cases where there is no external aperture an operation is rarely required. When the fistula is of the usual length and direction, and the patient's health fair, the employment of the director and the curved bistoury is indicated; but in those cases where the patients are delicate and tuberculous disease of the lungs is suspected, I very much prefer the use of the ligature. A long steel probe (armed with a silken thread attached to the side of the probe, which is removable) is introduced into the rectum along the fistula; the point of the probe is then seized by an instrument introduced with the forefinger per anum, and withdrawn, carrying with it one end of the ligature. The two ends of the silk, including the soft parts between the fistula and the anus, are finally tied, but loosely, so as to exert no pressure. In three to six weeks the ligature cuts its way out, the wound healing from the bottom. In this operation there is no pain.”

PREVENTION OF TUBERCLE.—Henry MacCormac, M.D., of Belfast, author of a treatise on consumption, says:

“Since I commenced the noble study of medicine, during the protracted period which has elapsed, I have rarely given less, on an average, than six hours out of twenty-four to study and composition. I have accumulated, as will be readily conceded, a large amount of various information. I have written on most branches of medical investigation, and I believe have carefully pondered all. I have striven earnestly to further the great cause of humanity, and to abate its manifold inflictions. The result has been an intimate conviction, that *I have determined the real and only possible source of tubercle*, and to enhance and intensify the belief, that the profession, if they will only energetically and uniformly enforce the habitual respiration of air not pre-breathed, may, within a very brief period, bring the ravages of tubercle to an absolute and permanent close.”—*British Medical Journal*, p. 110. Jan. 30, 1869.

TREATMENT OF MALIGNANT PUSTULE.—Dr. Caspar in Stassfurth has used liq. ammoniæ causticus in several hundred cases, and reports that the only instance of death was that of a woman far advanced in pregnancy, who vomited the remedy as often as administered. He gives to children from one to three drops, to adults five drops, in sweetened oatmeal-gruel, every hour by day and

night. He applies dilute liq. chlorini to the ulcer, but attaches little importance to the application; and continues the treatment until the inflammation in the neighborhood of the ulcer ceases to spread.—*Deutsche Klinik*. 1. 1869. D. F. L.

HEREDITARY ERYSIPELAS: ELECTRICITY.—Dr. Schwalbe in Pläfficon reports a case which he observed in Costa Rica, in which three generations were implicated. The grandfather, from his 18th year, had suffered almost every month from erysipelas of the legs, in consequence of which an enormous elephantiasis had developed. He died at 80. The father, since his 18th year, has had several attacks of erysipelas yearly; he also has elephantiasis of both legs. The eldest son had suffered similarly from the same age; and the youngest, aged 18, presented himself to Dr. S., with his first attack of erysipelas. In each person, the separate attacks were accompanied with violent fever and severe pain, lasting three or four days. Dr. S. applied the electric brush for ten minutes to the legs of the youngest; the relief to the pain was immediate and great.

Another case of erysipelas had lasted only twenty-four hours. The skin of the cheeks was much swollen; redness extended behind the ear and to the forehead; the cheeks were dotted all over with little circumscribed exudations, some of which had become vesicles. Fever and pain great. + pole (sponge) to the root of the facialis, - pole (brush) to the affected portions of skin for ten minutes. This was followed by much relief to the pain and tension. In twelve hours there was hardly any pain left, and the exudations had disappeared. The brush was again applied for ten minutes, and the next day the patient was well, not having had to give up her work, which was that of a house-servant.—*Allg. Med. Central Ztg.*, No. 5. D. F. L.

An apparatus for giving an alarm in case of the presence of carbonic oxide or coal gas\* in a room, it is reported, has recently been invented by a Prussian. It consists of a galvanic battery with a bell and a glass tube filled with liquid chloride of palladium. This metallic salt is extremely sensitive to the pressure of carbonic oxide gas. A small quantity of the gas will at once throw down some of the metal from the solution, and this precipitate collecting in the bottom of the tube, at once establishes a connection in the current of electricity, and the violent

ringing of the bell will warn the sleeper of his danger.—*Med. and Surg. Reporter*.

In an elaborate article on Hospital Gangrene as it Manifested itself in the Confederate Armies, during the American Civil War, 1861-1865, by Joseph Jones, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, the author says:—

In its mode of origin, hospital gangrene may be viewed in four ways:—

1st.—As a local disease, communicable only by contact with animal matter in a certain state of change or decomposition.

2d.—As a constitutional disease.

3d.—As both local and constitutional in its origin.

4th.—The disease may arise from the action of a specific poison, which acts in a manner similar to that of smallpox, measles or scarlet fever.

The third proposition expresses most nearly our views; for it is capable of demonstration by cases and instances which I have recorded and observed:—

First—That hospital gangrene may arise in those exposed to the exhalations from gangrenous wounds, without any abrasion of the surface.

Second—That hospital gangrene can be communicated through the atmosphere to wounded surfaces, without any direct application of the matter.

Third—That in some cases, after the wounds had been subjected to the action of the cause of hospital gangrene, a certain period of time elapses before the disease appears.

Fourth—That in some cases poisonous matters are so rapidly absorbed from the infected atmosphere of the crowded wards, and the diseased action is propagated with such rapidity from the local injury to the central organs in constitutions broken down by bad diet, exposure, and by the influence of the foul emanations from the wounded and sick crowded into badly ventilated hospitals, that death results from the effectual and almost immediate poisoning of the system, before the local disease has progressed to any extent.—*N. O. Journal of Medicine*.

DR. BROWN-SEQUARD will not enter upon the full duties of his chair of Comparative and Experimental Pathology before November next. The government has decided to build a *laboratoire* for him, near the School of Medicine in the Garden of the *Hôpital des Cliniques*.

\* The two are not synonymous.—Ed. B. M. & S. J.

## Medical Miscellany.

WE have received from the *Sacramento Daily Union* of January, 18th, 1869, a "slip" containing a report addressed to L. J. Deal, M.D., of Philadelphia, by Thomas M. Logan, M.D., on the question of the feasibility of cultivating the cinchona tree in California. Dr. Logan says:—

"Considering, therefore, the peculiarity and variety of the climatic conditions and vegetations of California, it can scarcely be doubted but that a locality may be found here for the propagation of the cinchona as readily as in India, where its culture has been attended with success."

Dr. Logan, being a member of the State Board of Agriculture of California, promises the coöperation of that Board in any plan which may further the introduction and cultivation of the cinchona tree in that State; and the Sacramento Medical Society has voted to use every effort in the same direction.

**ANALYSES OF AIR.**—The Metropolitan Board of Health of New York are now making analyses of the air of theatres and other places of public assembly. We hope they will include hospitals in their examination.

**HAIR DYES AND COSMETICS.**—Some hair dyes are innocent enough, and do not require any warning on the part of the medical man; others are dangerous, and the use of both kinds requires tiresome manipulations. Among the innocent kinds we may mention infusion of beans, and cypress cones, of willow bark, and ivory black. Among the second kind may be enumerated sulphate of lead, mingled with hydrate of lime and water; carbonate, acetate and sub-acetate of lead in solution, to which dilute sulphuric acid is added, and which dyes the hair a dark brown. The salts of silver, too, are much used to blacken the hair, but they make the scalp irritable, and burn the skin and the hair follicles, and tend to produce baldness. . . . Certain substances are used for changing the color of the skin: for example, the white cosmetics, bismuth, or pearl white, is sometimes mixed with a notable quantity of arsenious acid, when it is dangerous; but when this substance is purified, it is innocent. . . .  
—*Dublin Medical Press and Circular.*

IN Dr. Livingstone's account of his rencontre with the lion, when his arm was fractured, he writes:—"I saw the lion in the act of springing on me. I was on a little height; he caught my shoulder as he sprang, and we both came to the ground below together. Growling horribly close to my ear, he shook me as a terrier dog does a rat. The shock produced a stupor like that which seems to fall on a mouse after the first shake of the cat. It caused a sort of dreaminess, in which there was no sense of pain nor feeling of terror, though quite conscious of all that was happening. It was like what patients partially under the influence of chloroform describe, who see all the operation, but feel no knife. This singular condition was not the result of any mental process. The shake

annihilated fear, and allowed no sense of horror in looking round at the beast." This peculiar state is probably felt in all animals killed by the carnivora.—*People's Magazine.*

**CARBONATE OF LIME IN PERTUSSIS.**—Dr. Snow, of Providence, R. I., has suggested the use of carbonate of lime in whooping cough, and in all cases it has apparently produced a marked effect in diminishing the frequency and severity of the paroxysms. Small quantities of the carbonate of lime are placed in saucers in the room where the child sleeps; merely sufficient to make the odor perceptible.—*Medical Record.*

WE have at the disposal of those wishing them a few copies of a "Memorandum for the information of persons desirous of entering the Medical Corps of the U. S. Army."

It has been calculated that on some part or other of our planet an aërolite descends daily.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10 A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATA.**—In last week's issue, page 39, 2d column, line 38, for "quantity" read *gravity*; page 40, 1st column, line 11, for "pleuras" read *pleura*.

**TO CORRESPONDENTS.**—The following communications have been received:—Treatment of Diseases of the Lachrymal Sac.—Interesting and Unusual Cases of Traumatic Injury of the Eye.

**PAMPHLETS RECEIVED.**—Report of the Pennsylvania Hospital for the Insane, for the year 1868: by Thomas S. Kirkbride, M.D., Physician-in-Chief and Superintendent.—Eleventh Annual Report of the Chicago Charitable Eye and Ear Infirmary, presented by the Board of Surgeons, for the year 1868.—Reports of the Trustees and Superintendent of the Butler Hospital for the Insane, Providence, R. I.—First Annual Report of the Orthopaedic Dispensary, located at 1299 Broadway, New York.

**DEATHS IN BOSTON** for the week ending Saturday noon, February 20th, 124. Males, 61—Females, 63.—Accident, 4—apoplexy, 3—inflammations of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 3—cancer, 5—consumption, 18—convulsions, 6—croup, 2—debility, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 3—epilepsy, 1—erysipelas, 2—scarlet fever, 11—typhoid fever, 7—gangrene, 1—disease of the heart, 1—disease of the hip, 1—homicide, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 13—marasmus, 1—measles, 1—old age, 5—paralysis, 3—peritonitis, 2—premature birth, 3—disease of the spine, 1—softening of the stomach, 1—syphilis, 1—teething, 1—tumor, 1—whooping cough, 1—unk'n, 8.

Under 5 years of age, 42—between 5 and 20 years, 8—between 20 and 40 years, 28—between 40 and 60 years, 25—above 60 years, 21. Born in the United States, 84—Ireland, 29—other places, 11.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MARCH 4, 1869.

[VOL. III.—No. 5.]

## Original Communications.

### CEREBRAL AMAUROSIS.

By Dr. IG. MEYER, K.K. Kreisphysicus in Steyer.

[Translated for the Journal by B. JOY JEFFRIES, A.M., M.D., from the Vienna Weekly Medical Journal.]

[TRANSLATOR'S NOTE.—In our communities, even physicians who pay special attention to diseases of the nervous system, have not yet rendered themselves familiar with the use of the ophthalmoscope, and the healthy and morbid appearances revealed by it in these complaints, when of cerebral origin. Consequently, the specialist is called upon to make the ophthalmoscopic examination, report what he finds, and give his prognosis, although if the result is negative, certainly the case does not belong to ophthalmic medicine and surgery. To make a careful examination, the surgeon must be familiar with the use of the *upright* as well as *inverted* image. This takes more time and patience than any physician in general practice is willing to give to it, and he therefore, upon the occurrence of ocular symptoms, immediately consults the specialist. For the present at least, then, it is necessary for us ophthalmologists to be familiar with the ophthalmoscopic signs connected with cerebral diseases. I have therefore translated the following memoir of Dr. Meyer for the convenience of my brother physicians when studying up a special case. It reviews a large number of recorded cases, and gives some general laws of the connection of amblyopia and amaurosis with cerebral diseases. I think this digest, for instance, would have been of great assistance in such a case as the very interesting one lately reported by Dr. S. L. Abbot, in this JOURNAL. I do not imagine many will take the trouble to read this all through, particularly as it must appear in detached parts, but I think it will be worth while to glance it over, so as to know where to look for some assistance in making up one's diagnosis and prognosis. I would, in connection with this, call attention to the

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memoirs of Græfe, Bouchut, Galezowski, Beaumetz, Hughlings Jackson, &c.

B. J. J.]

Ophthalmoscopic examination has shown, in a series of amblyopic and amaurotic blindnesses, material alterations in the retina and optic papilla, as also in their circulation, which must be considered the direct cause of the amaurosis. In very many cases, however, the ophthalmoscope does not reveal anything, and the immediate cause of the blindness must be looked for in the pathological condition of the brain and spinal cord, which may often be the case when *secondary* changes are afterwards seen in the papilla by the ophthalmoscope.

In general, it is not difficult to determine the existence of cerebral amaurosis. The appearance of undoubted brain-symptoms, the absence of special amaurotic changes in the retina, optic nerve or orbital structures, the persistence and increase of the disease, generally indicate or determine the fundamental complaint. It is much more difficult, however, to determine precisely the character of the disease within the cranium, and particularly its locality.

The appearances which indicate the cerebral origin of amblyopia and amaurosis are the generally observed symptoms of brain disease. Amongst these are specially reckoned—headache, functional anomalies of the brain (of the sensation of perception, by the eye, by the other senses, and mental functions), giddiness, subjective abnormal sensations, loss of sensation (anæsthesia and analgesia), difficulties of voice and articulation, anomalies of motion dependent on the brain (convulsions, cramps, contractions, paralyzes), apoplectic and epileptic attacks, unconsciousness, coma, lack of and troubled sleep or great somnolency: besides these, symptoms in other organs, especially bad digestion, vomiting, spinal reflex attacks, anomalies of the genital functions, and also in the composition of the blood and nutrition.

By grouping a number of cases of cerebral and spinal amauroses, which after fatal termination were subjected to autopsy, I

[WHOLE No. 2140.]

will endeavor to connect the symptoms presented with the character and locality of the disease, in order from these, considered with the reports of good pathologists on the phenomena of organic cerebral troubles, to gather, if possible, some data for the diagnosis of these so often very obscure complaints.

The observations upon which this memoir is based number 143, being cases gathered from literature, of cerebral disease in which amblyopia or amaurosis was a specially noted symptom, either in the commencement or the course of the complaint. In 83 of the 143 cases, tumors were developed either in or on the brain. Of these tumors, 22 were in the cerebral hemispheres; in the lateral ventricles, 3; in the optic thalami, 3; in the corpora quadrigemina, 2; in the tentorium, 3; at the base of the brain, 9; in the pons Varolii, 10; in the hypophysis, 22; in the cerebellum, 2; multiple tumors in the cerebrum, 7. Besides the tumors, processes of exudation were seen 8 times, especially at the base of the brain; 8 times purulent formation and cerebral abscess; 11 times softening of the brain; 3 times induration; 7 times apoplectic deposits; 8 times aneurism of the cerebral arteries; once hydrocephalic appearances; 8 times affections of the spinal cord, and 6 times disease of the cranial bones.

The amblyopia or amaurosis seen in these cases affected mostly both eyes, commencing generally with reduced vision or blindness on one side, and involving, in the course of the disease, the other. Several times blindness is reported only on one side, and was explainable in some cases by pressure from apoplectic collections, &c., upon one or the other optic nerve from the chiasma or upon one optic trunk. For instance, in one case aneurism of the left arteria communicans pressing on the left opticus produced blindness only on the left side, as also an abscess in the left anterior cerebral lobe, and an apoplectic clot in the right anterior cerebral lobe caused blindness on the respective sides. Monocular amaurosis was also noticed where there were tumors situated in one half of the pons, in one crus cerebri, optic thalamus, or corpus striatum, mostly on the affected side; to this, however, there were exceptions. If the central portions of the brain were affected, or if the disease was at the base, blindness was generally binocular. In a case of Friedreich's, a tumor reached from the left posterior cerebral lobe to the base and thalamus, and yet there was paralysis of the right side and loss of vision of right eye.

With tumors of considerable size in these parts, there was generally more or less extensive paralysis of the opposite half of the body, and sometimes blindness on that side. Tumors in the corpora quadrigemina do not always destroy vision. In one of Bright's cases there was a tumor here situated, in a person who had been mentally and bodily weak from youth up, and yet no other symptoms than pain in the forehead and temples, dizziness and uncertain visual impressions. In a case reported by Zschokke (*Deutsche Zeitschr. f. Staatsarzneikunde* 1. Band. 1853, p. 411), there was a medullary carcinomatous tumor at the origin of the optic nerves in the globuli medullares and corpora quadrigemina, considerable fluid in the cerebral ventricles, and numerous spiculae and plates of bone in the dura mater and basilar surface of the cerebrum, absence of the olfactory nerves, scarcely a trace of chiasma and infundibulum visible; in this case there was at first dimness of vision, lasting for half a minute and then passing off, but finally complete amaurosis. Of course there was absence of smell; and frequent faintings, with numbness of the body, occurred. In a case of tumor in the hemisphere, in a tumor of the hypophysis, as also in a case of aneurism of the carotis cerebialis, occasional very temporary dimness of vision took place.

Sudden blindness was seen in a case of hydatids in the left lateral ventricle, a tumor in the right median cerebral lobe, an abscess in the left hemisphere of the cerebrum, and also in a case of encephaloid of the right posterior cerebral lobe. Greatly disturbed circulation, producing hæmorrhage in the optic sheath or in the interior of the eye, may have been the cause.

So soon as tumors produce pressure upon the organs at the base of the brain, they generally affect vision. There are numerous cases where exudations at the base of the brain and disease of the hypophysis were followed by amaurotic blindness. Tumors and hardening of the hypophysis occurred in twenty-two of the above cases, causing amaurosis. Engel reports seven cases in which blindness occurred (*Diss. de Hypophysi Cerebri et Infundibulo*, Vienna, 1839). The pressure on the chiasma and its consequent atrophy and degeneration sufficiently explain them. Other processes act in the same way; for instance, exudative processes at the base. Danielssen (*Zeitschrift d. Gesell. der Aerzte in Wien*. 9. Jhrg. 2 B.) reports a case in which in a leprous person the chiasma opticum was surrounded by a pretty firm, thick exuda-



tion, which had its seat in the serous tissue of the tunica arachnoidea and caused pressure and stretching of the optic nerve, and hence piercing pain in the right eye, great photophobia and gradual loss of vision. There were also in this case pains partly deep in the head, partly in the hands and feet, with hyperæsthesia of these parts. Prof. Türck has made some interesting observations upon affections of the chiasma (*Sitzungsber. der Math. Naturw. Classe der Kaiserl. Acad. der Wiss.*, Jahrg. July, 1852). His first observation was a compression of the optic nerve before the crossing, by the arteriæ corporis callosi in a cancerous tumor of the hypophysis. A second observation was compression of the optic tracks by the arteriæ communicantes posteriores running nearly diagonally across under them. Türck also calls attention to the pressure on the chiasma from severe acute or chronic hydrocephalus, producing a vesicular swelling of the tuber cinereum. In some of the cases of hydrocephalus with marked cerebral pressure, but in which the tuber cinereum was not swollen, there was no amaurosis. Türck found in most of these amaurotic cases an exudative process, with nucleated cell-formation in the chiasma and on the optic tracks up to the corpus geniculatum externum. In Truka's history of amaurosis there is a case of Kaltschmied's noticed (Jena, 1752), in which a woman, who had been struck on the head ten years previously, suffered from severe pain in the head; several months after, upon sneezing, a pound of lymph was evacuated, then amelioration for some time, and finally, a year before death, headache and amaurosis occurred. The optic nerves were found pressed and flattened by a large collection of water in the whole brain and under the cerebral meninges; the plexus choroideus also varicose.

Inflammatory processes in the meninges of the brain frequently cause amaurosis, especially if exudations collect at the base of the brain and there produce pressure on the optic nerves. By similar pressure, hydropic collections in the lateral ventricles, as also at the bottom of the third ventricle, lead to amaurosis. These cases are mostly met in young persons and children disposed to hydrocephalus. Of eight such cases of amaurosis, one was 3 years, three between 10 and 20, and two between 20 and 30 years. The largest amount of exudation was in the region of the chiasma. Such cases especially followed acute exanthemata (scarlet fever).

Next to the inflammations, we have cases

of *pus* and *abscesses* in the brain, where amaurotic blindness occurred. Of 8 such cases (observed by Clerk, Burserius, Abercrombie, Bateman, Bennet, Henkel) the locality was generally (7 times) in the hemispheres; once, namely, in Burserius's case (cited by Abercrombie in his *Diseases of the Brain and Spinal Cord*), the pus was in the cranium and down to the bottom of the orbit. This patient had a tumor about the brow, lids and cheek of the left, diseased side, with pus formation. Possibly, therefore, the purulent deposit within the cranium was secondary. Wunderlich states that abscess of the brain is accompanied more rarely by marked disturbance of the senses, especially of sight, but that abscesses in the anterior lobe are more apt to be followed by trouble of vision.

Amaurosis frequently accompanies softening of the brain. In 11 cases (observed by Gericke, Marcusen, Ravitz, Düsterberg, Andral, Bennet, Meyer, Romberg) the softening was 4 times in the central portions of the brain and at the base; 3 times in the anterior lobes of the hemispheres; 3 times in the optic tracks and thalami, and once in the medulla oblongata. In a case of Ravitz's (*Casp. Wochenschr.*, 1851, 28 and 29), the right optic track and thalamus were superficially softened. In this patient, a man aged 25, there was complete blindness *left*, and hearing, smell and taste less on this side, besides paralysis of the left ocular muscles and diminished mobility of the left half of the body. In a case of Düsterberg's (*Casp. Wochenschr.*, 1846, 14), the left lateral ventricle was greatly distended, the surrounding cerebral substance, the left optic track and thalamus softened, and on the left petrous bone, where the ganglion Gasseri lies, four stactite points of bone compressing the ganglion, which was flatter, softer and larger. The patient, a man aged 28, suffered from left supra-orbital neuralgia and neuralgia of the second and third branches of the trigeminus. There was amaurosis of the left eye, trembling of the lower limbs, dizziness and convulsions, with unconsciousness; paraplegia and sopor accompanied it. If the softening affects the median portion of the base of the brain, blindness occurs on both sides. A case observed by me was that of a servant woman, aged 38. Menstruation appeared first at 22 years of age, was always irregular, and was absent for two years before the patient's entrance into the hospital. A year previous she had occasionally suffered from (rheumatic?) pains in the head, dizziness, ring-

ing in the ears, optical hyperæsthesia (sparks, flashes, colors) and diminution of vision. Upon reception, there was in both eyes only qualitative perception of light; iris had very slight mobility; pupils dilated. In addition, restless nights, heavy dreams, frequent palpitation (without discoverable organic disease). With cooling remedies and purgatives (calomel), the headache ceased. In the further course of the disease there were frequent pains in the abdomen, and diarrhœa. Vision decreased, till finally perception of light vanished. In the course of half a year death followed, with convulsions or stupor; after, however, pneumonia on the right side, severe vomiting and diarrhœa. The pia mater was found infiltrated with serum, with difficulty separable, the corpus callosum, fornix and anterior commissure softened, the choroid plexus and venous branches very empty, the corpora striata softened posteriorly, both optic thalami swollen, strewn with reddish points, the back part of the corpora quadrigemina atrophied, superficially eroded and softened, the base of the fourth cerebral ventricle softened, as also the cortical substance in the posterior lobes of the cerebrum; the hypophysis very much filled with blood, and capillary apoplexy in its back part, fatty degeneration of muscle of the heart in the right ventricle.

[To be continued.]

### CLINICAL LECTURE ON ULCUS ROTUNDUM VENTRICULI.

By PROFESSOR OPOLZER.

[Translated for the Journal from the Allg. Med. Zeitung of Vienna, by D. F. LINCOLN, M.D.]

THE patient spits a great deal, which is occasioned by a sympathetic irritation of the nerves of the mucous membrane of the mouth. It is a fact, that in diseases of the stomach, large quantities of the fluids of the mouth are secreted, and this statement includes the saliva as well as the secretion of the mucous membrane of the mouth. When the mucus is in excess, the reaction is acid. It was formerly supposed that the fluid of pyrosis was nothing else than intestinal saliva (Bauchspeichel). But if this were the case, the fluid in the mouth would necessarily contain gall. The fluid of pyrosis is simply an excessive quantity of very dilute saliva, containing a very small amount of bityalin and sulphocyanide of potassium (Rhodankalium).

A second symptom of perforating ulcer of the stomach is the pain in the scrobicu-

lus cordis, usually increased by pressure, and generally beginning to be felt when digestion commences. This disease is more common than is imagined, for most cases of cardialgia may be referred to it. The cicatrices of this ulcer are found with especial frequency in the stomachs of old women. Most patients cannot bear acid and fatty articles of food at all. Some bear meat more easily, others farinaceous food; and it is interesting to remark that certain patients will bear only certain articles, as for instance, only ham, or only raw beef—which should be prepared by chopping fine and adding lemon-juice (citronensaft) and salt. But it is always well, first to put the meat into hot water, in order to coagulate the cysticercus cellulose, if for no other reason. Sour milk, which contains casein in a state of very fine subdivision, is the best diet for this class of patients.

Tenderness upon pressure in the scrobiculus may be absent, when the ulcer is on the posterior wall of the stomach, or when through age it has grown callous. But beside the cardialgia and the sensitiveness below the xiphoid process, the patients suffer pains of other kinds, which may be caused by the irritation of the food, the movements of the stomach, or the pressure of gases within the stomach.

A continuous pain, in a case of round ulcer of the stomach, is caused by the super-vention of peritonitis. In such cases the tenderness is great and increases steadily; there is fever, vomiting and much distention of the belly. The danger of perforation is then extreme, and the friends of the patient ought to be made aware of it. This change in the character of the pain requires a change of treatment.

Pain, however, occurs in other diseases of the stomach, especially in cancer and hæmorrhagic erosions; and other symptoms are necessary to a diagnosis of ulcer. Such are eructation, vomiting, hæmatemesis and heart-burn. Eructation is a vomiting of wind; it is necessary to observe by the odor, whether it is caused by the food consumed, or by the presence of sulphuretted hydrogen.

When the substances vomited contain lactic, acetic or butyric acid, an abnormal state of the digestion is present, which gives rise to a gastric catarrh with or without fever. The vomiting of blood is not of itself an adequate proof of the presence of a round ulcer of the stomach, since it also occurs when a cancer ulcerates. Yet in most cases of cancer of the stomach a movable tumor is demonstrable in the region of the stomach,

while the tumor which may arise from perforation and peritonitis is not movable. Fatal hæmorrhage may occur as the result of arrosion of the arteria coronaria sinistra; less frequently of the gastro-epiploica, the gastro-duodenalis, the vasa brevia ventriculi and the art. lienalis.

An important symptom in gastric ulcer is the heart-burn, a sensation as if a flame were rising from the stomach to the œsophagus and extending up over the throat; which may be accompanied with an increased secretion of the fluids of the mouth, and the eructation of a sour or rancid fluid. Cancer of the stomach is also very frequently accompanied with heart-burn. This is commonly caused by the formation of lactic, butyric or acetic acid in the stomach, but in its worst form it is accompanied by rancid eructation, showing the presence of butyric acid, which cannot be neutralized by water. It is interesting to observe that in many cases heart-burn is not caused by acids at all, inasmuch as the fluid of the stomach is alkaline; in such cases relief is best obtained by acids. The burning sensation, which spreads upward, is sometimes a symptom of inflammation of the cardia, in which case there is a constant feeling of burning in the pit of the stomach.

The size of the stomach, in cases of round ulcer, is variable. If the ulcer is close to the pylorus, a contraction of the latter may give rise to a dilatation of the stomach. A frequent cause of dilatation is also found in catarrh, which relaxes the muscular fibres, and consequently renders the stomach distensible by gases.

The shape of the stomach is also frequently changed. When the ulcer is situated in the middle of the lesser curvature, the stomach may be converted into two sections, a cardiac and a pyloric, looking like an hour-glass.

The stomach is diminished in size, when the ulcer is extending and yet continually contracting. Constipation is the commonest of occurrences. But, on the other hand, the stomach may lose its power of contraction through catarrh of the pylorus, which gives rise to lientery—the discharge of undigested food in the fæces.

The nutrition is often but slightly affected, provided there is no hæmorrhage and cardialgia does not set in during the night. But when the cardialgia increases in severity, the digestive powers fail, and bleeding occurs, then the patients grow pale and thin, and sometimes acquire the cancerous aspect, which of course makes the diagnosis more difficult.

Most cases of ulcer rotundum ventriculi, like chronic maladies of the stomach in general, are combined with tuberculosis pulmonum and phthisis.

If the ulcer has lasted several months it may still heal; but when it has existed for years, and has become callous, when the stomach is already perforated, and is only prevented from further rupture by adhesion to the diaphragm, transverse colon, pancreas or liver, then healing is very difficult. The result of the ulcer is either a cicatrix, or a perforation and fatal peritonitis. Such a perforation may easily be recognized by percussion of the right hypochondrium; for we find that on the right the clear resonance of the lungs passes directly into that of the intestines, because the liver is pressed back by air which has entered the abdominal cavity, and hangs merely by the ligamentum suspensorium hepatis.

Death may occur either from excessive bleeding, or even without bleeding, from marasmus.

As to the origin of these ulcers, the first step is probably an inflammation, in consequence of which some of the arteries become blocked up; this gives rise to necrosis of a portion of tissue, which is attacked and digested by the gastric juice. As the occlusion of the arteries extends, the necrosis extends likewise.

In the matter of therapeutics, the treatment with sour milk is the chief point. For the cardialgia, give magistery of bismuth (subnitrate), with acetate of morphia, or if the patient is inclined to be constipated, with belladonna. Nitrate of silver (one-tenth grain) is also given in the form of a pill. For excessive vomiting, subcutaneous injections of morphia are the best remedy; or, if the morphia itself be the cause of vomiting, “pills” of ice, which have likewise a good influence upon the hæmatemesis through their effect in contracting the gastric bloodvessels. If peritonitis occurs, it is betrayed by the continuous pain. We should then resort without delay to local bloodletting, and cold applications (kalte umschläge) in the region of the stomach.

For heart-burn, bicarbonate of soda, chalk, magnesia, and conchæ preparatæ are given; when the last is used, the patients often have disagreeable sensations in the stomach, as the article is entirely composed of minute pointed fragments. (Dog's dung has been employed for the same purpose.) The magistery of bismuth has the best effect.

For tympanites ventriculi, the best remedy is friction, with æthereal oils in the region of the stomach. By this means the

stomach is relaxed, the cardia or the pylorus opens, and the gases are enabled to escape.

### CATTLE DISEASE.

MR. EDITOR:—At session of the Academy of Sciences of Paris, Jan. 11th, 1869, M. Bouley communicated to the Academy the results of experimental researches he had made last summer on a disease in cattle in Auvergne; through an official commission of which he was appointed president by the Minister of Agriculture, and M. A. Sanson secretary.

The disease has existed from time immemorial in the mountains of Cantal and Puy-de-Dôme, and the inhabitants call it *disease of the mountains*.

The Commission at once found that the disease was virulent, and transmissible by inoculation to the ox, the sheep, and the rabbit; and that the disease was none other than charbon, as Petit had shown towards the end of the last century.

The commission thought it proper to profit by the opportunity given them to the study of the question whether the virulence of charbonous blood depended exclusively upon the presence of bacterids. Their researches did not confirm the opinion of such dependence. The following were the results of their investigations:

1st, That blood taken from a charbonous animal can transmit charbon, when the presence of bacterids cannot be discovered by the microscope. 2d, That charbonous blood containing bacterids in large quantities loses its virulence by desiccation, and does not regain it by being liquified by water, although the bacterids remain perfectly visible. 3d, That the blood of rabbits dead in consequence of inoculation of charbon always contained bacterids, even when the liquid inoculated contained none; whilst amongst ruminants, the ox and sheep, dead from like inoculation and from the disease taken in the natural way, the presence of bacterids in the blood was not constant. Thus they are sometimes found and sometimes not; and when not found the virulence of the blood tried by inoculation was none the less active.

According to M. Sanson, and after original experimentation, the alteration undergone by charbonous blood is none other than a putrid fermentation; both the charbonous blood and the blood in which putrid fermentation has begun, having this common character, that in both the modified

albumen acquires the properties of a diastase, capable of converting starch into sugar. Both also have this other common characteristic, that when inoculated they will alike produce the same disease—charbon.

Mr. Bonley closed his communication by testifying to the good results derived from the internal and external administration of phenic acid.—(Translated from *Archives Gén. de Médecine*, Feb., 1869, p. 247.)

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

DEC. 14th.—*A Case of Imperforate Anus, with opening into the Vagina.* Reported by DR. S. L. SPRAGUE.

On the 14th of Aug. I attended Mrs. C. in confinement, who was delivered of a healthy girl, her third child. The child passed its fæces, the napkins were soiled, and nothing was seen unusual until the sixth day, when the grandmother who had the care of it noticed that the contents of the bowels came from the vagina, and that there was no anus. She informed me that the child was sadly deformed, and wished it would die.

I saw that the fæces passed by the vagina, but did not make a thorough examination until the next day, when in company with Dr. C. D. Homans I examined the child.

Touching the vagina caused straining by child, and it passed fæces in a fine stream through a small opening, at the edge of the vagina at the posterior commissure. This opening was of the size of a small probe, which was passed in and found to pass freely into a large dilated cavity, the rectum. The opening was in the posterior commissure of the vagina, where the integument joins it on the perinæum.

The fæces were discharged quite freely, and as the child appeared well and nursed well, it was thought best not to do anything immediately in the way of remedying the deformity.

The child continued well for some days, but in the course of a week I was called to it, as it was sick and refused to nurse. I found the abdomen swollen and tense, the small opening in the vulva not being sufficiently large for the discharge of the fæces. The perinæum was smooth, and no bulging, as is sometimes seen when the contents of the bowels are forced down by the straining

efforts of defæcation. I passed a probe through the opening and pressed down upon the perinæum, causing a prominence by the end of the probe nearer to where the anus should be, and then made an opening which gave free exit to the fæces. The child had great relief, it nursed well and grew. This opening gradually narrowed, the fæces did not pass freely, the bowels became swollen and hard, and the child's appetite failed. The mother felt very sad, and feared the child, if it lived, would be miserable in health and more miserable in mind if it ever lived to realize its situation, and she therefore wished the child would die, and rather opposed anything more being done. She was persuaded, however, to submit the child to another operation, and on the nineteenth day from the time of the first opening thus made, I passed a director through the opening in the vulva, bringing the end out at the other opening on the perinæum, and dividing the integument, brought the two openings into one large opening. The fæces discharged freely, and the child regained its appetite and health, and grew fat. The operation was performed on the 16th of September, three months since. The opening has not contracted, but easily admits the little finger. The fæces pass freely, and the child grows and is perfectly well.

Imperforate anus by a membrane which covers the anus is the most favorable kind to deal with, and the least serious in its results.

Imperforate anus with opening into the vagina is a very disagreeable defect of formation (malformation), but not necessarily fatal. If the opening is too small the infant will perish from impossibility of discharging its fæces; but if the opening is sufficiently large, the child lives, and its life is not shortened by it.

Cases are recorded of this variety, which are mentioned by Boyer.

"De Jussieu reports that he knew a girl 8 years of age who had the anus closed, and passed the fæces by the vulva.

"Benivenius says that a girl born with imperforate anus passed some days after birth faecal matter by the vulva, and that she lived with the infirmity to the age of 16 years, when she died in the most violent pains of colic.

"San Swieten knew a marriageable girl every way healthy, but with this deformity.

"Haesbart speaks of seeing a girl 20 years old who passed fæces by the vulva, the anus being imperforate. She enjoyed good health.

"One case especially interesting is report-

ed by Morgagni—the daughter of a Jew called Teutonicus. She came into the world without an anus, passed her fæces by the vagina, and lived to the age of an hundred years."

Dr. JACKSON said he had seen several such cases in infants; had also seen one in a pig. Dr. Mussey has reported a case in an adult.

Dr. HOOKER had seen two such cases; one child died at the age of one month of disease resulting from the malformation, the other is 3 or 4 years old and healthy.

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## Bibliographical Notices.

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*A Treatise on the Diseases of Infancy and Childhood.* By J. LEWIS SMITH, M.D., Curator to the Nursery and Child's Hospital, New York; Physician to the Infant's Hospital, Ward's Island, &c. Svo. Pp. 620. Philadelphia. 1869.

We have perused Dr. Smith's book with not a little satisfaction: it is indeed an excellent work; well and correctly written; thoroughly up to the modern ideas; concise, yet complete in its material. While we deprecate the present method of stringing words to words, after the fashion of our home and foreign brothers, with the seeming sole purpose of writing one's self into notice, we cannot help welcoming a work which will be worthy of reliance as a text book for medical students and younger physicians in their investigation of disease in children.

Dr. Smith offers us a general text book for the diseases of childhood; he takes occasion, however, in the early chapters to consider the child in its normal state, and gives practical and most excellent rules relating to the care of the mother in pregnancy, lactation, feeding, weaning, &c. In this portion and throughout the work his constant references to the medical journals of the last decade show that he is thoroughly conversant with the current literature of the subject, and, in our present age of progress, we certainly recognize in this the only satisfactory method of keeping pace with the most enlightened experience. We therefore feel that the work in question is well adapted to the practitioner who has not the time or opportunity to keep up with the ideas of the modern schools. The fact that the author makes reference to Dr. Ware and Dr. Jackson—men whom we all highly respect in this community—will help to give it good standing among us.

After considering the subjects above mentioned, and infantile diagnosis in general, the author proceeds to consider, in successive sections, diseases of the cerebro-spinal, respiratory, digestive and circulatory systems, zymotic diseases, and diseases of the skin. Dr. Smith's concise, yet searching description of each disease reminds us of the style of Gooch; while his practical and careful suggestions for treatment recall the instructions we received from Dr. Ware. We are especially struck with the articles on meningitis, eclampsia, croup, indigestion and scarlet fever. His treatment is simple in the extreme; mercury and the lancet—which our English friends, with the persistence characteristic of their race, are reluctantly giving up—are hardly mentioned; remedies which, as we look back at their former indiscriminate use, happily remind us of the palæozoic animals, "dying of an altered world."

We are glad to notice one point in the book before us. We think too little, we fear, in this age, of the future *permanent* benefit of our little patients; we fail to inquire, while we tide over the little sufferers in what seem to us temporary illnesses, what shall be life and health-giving remedies for their whole life-journey; we forget that "it is not merely the alternative between life and death, but between wholesome, happy, enjoyable life, and the innumerable forms of death in life, which an unhealthy or neglected childhood entails upon the innocent sufferers to the end of their days." Can we be censured, looking, as some of us have daily to do, on the piteous wrecks of childhood which are brought before us, for thinking the death of such children a desirable possibility? Though he does not expressly discuss this subject, we cannot fail to notice that the advice of Dr. Smith constantly looks to the future as well as the immediate good of the patient.

Every work, however, must have its objectionable points, and as honest critics we feel that we ought to speak of them. For instance, we object to the nomenclature of the disease which Dr. Smith calls "Internal convulsions." The term is a popular one, indeed; but, for that very reason, it should not be a professional one. It gives no idea of the locality of the trouble, and should be set aside as unscientific in the same class with debility, scrofula and other discarded terms. Almost any other of the terms applied to it in our text books we think preferable.

We do not wish to appear captious when we say that in many of our medical books of the present day we are constantly per-

plexed by the poverty of the indices; and Dr. Smith's work is not an exception. For instance, the title internal convulsions may be unknown to a practitioner who is accustomed to call the disease laryngismus stridulus, or spasm of the glottis, or thymic asthma, or something else. In Dr. Smith's work the disease is only entered as "convulsions, internal." Should not the author also give us cross references under half a dozen other letters and titles, and so render his work doubly valuable, as well as save the time and patience of his readers? We notice also that he makes no mention of umbilical hæmorrhage, a subject which we feel should not be omitted from a treatise on infantile disease, and which has been so thoroughly treated by a gentleman of our own city. On a few other points only do we feel compelled to differ from the author.

The book is very free from those crudities of judgment and practice and style which disfigure so much of our current professional literature; and we are glad to close, as we began, by welcoming a valuable book to the profession.

F. H. B.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, MARCH 4, 1869.

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### THE STATUS OF MEDICAL OFFICERS IN THE U. S. NAVY.

It is desirable, on grounds of national self-respect and *esprit de corps*, that our profession should be represented abroad by gentlemen of education and good attainments. The trans-Atlantic estimate of American medical men is of course based more or less on the qualifications of the surgeons of our ships of war, of which some are constantly in various European ports. To secure the continuance of a class of highly educated men as surgeons in the navy, it is requisite that there should be no falling off, relatively or absolutely, in the promotions for prolonged and meritorious services awarded to those officers. It is intimated, in a reliable document now before us, that there is a "prevalent disposition to seek more promising fields than the navy now offers to members of the medical profession." It is further stated that the "resignations of medical officers

are so numerous, and the number of candidates qualified to fill their places are so few that, according to the last annual report of the 'Chief of the Bureau of Medicine and Surgery,' there are no less than forty-eight (48) vacancies in the medical staff; and he expresses an opinion that this branch of the public service is threatened with *disintegration*; and that it can be averted only by effective Congressional action." Such legislation has been, and probably will be again solicited. It seems to us, therefore, highly fitting that medical men in civil life should be prepared to say a timely word in behalf of our brethren "who go down to the sea in ships," should be at least in possession of the facts, so as not to be obliged to confess ignorance of movements for the advantage of the naval surgeon, if consulted on the subject by any likely to influence legislation. And, it is reported to us by our friend Dr. S. F. Cones, of the Navy, that the medical officers of that branch of the public service earnestly desire the support and sympathy, and also, if possible, the coöperation of their professional brethren in civil positions, in their attempts to obtain a recognition of the value of their services during the late war.

Dr. Cones says, in a letter to us:—

"The medical corps simply asks, that their services should be rewarded as those of line officers have been; that the same rank relatively to the line that they had before the war should be restored to them; that in rank and position they should be the equals of the medical officers of the army and of other navies. No increase of pay or of numbers is asked for; but a change in the assignment of duty, which will enable the older surgeons to enjoy, on *shore stations*, their higher rank, and throw more of the sea service upon the younger men.

"It is hoped that these changes, if made, will prove an incentive to young men of education and ability to enter the corps."

As we understand the matter, the Surgeons of the Navy, by an order of August 31, 1846, ranked from above downward as Commander, Lieutenant, Master, Passed Midshipman, Midshipman, there being one "Line Grade" unattainable by medical officers—viz., that of Captain. But by an order of March 13th, 1863, the medical grades were made to range from Captain,

down through Commander, Lieut.-Commander, Lieutenant to Master, while instead of one "Line Grade" above them as before, there were constituted four such—viz., Admiral, Vice-Admiral, Rear-Admiral, Commodore. It is this relative *de-gradation* that it is sought to rectify. And as naval rank is not merely a name, but means position and personal comfort, particularly in advancing years, it seems to us that our *confrères* of the quarter-deck have a claim, additional to that already mentioned, upon our interest in their behalf.

The main features of the "proposed rank and assignment of service" sought for the Medical Staff of the U. S. Navy, are set forth in the three sections we quote below from a bill on which, or on one similar to which, Congress will be called to act. A bill asking for an increase of pay, we perceive by a *New York Medical Journal* has been defeated. A new bill, not providing for such increased pay, is now in question.

"SEC. 1st. *Be it enacted* by the Senate and House of Representatives of the United States of America, in Congress assembled: That on the passage of this Act, the President of the United States by and with the advice and consent of the Senate, shall appoint from the present Corps of Surgeons on the Active List of the Navy, a Chief of Bureau of Medicine and Surgery, who shall hold his office for the term of four years, and who shall be, *ex officio*, the ranking officer of the Medical Staff, and receive the same compensation for his services as the Chief of any other Bureau of the Navy Department.

"SEC. 2d. *And be it further enacted:* That the President of the United States shall, in like manner, appoint from the Surgeons on the Active List of the Navy in the order of their official seniority, twelve (12) Medical Director-Generals, each with the rank, pay and emoluments of a Commodore in the line of the Navy; eighteen (18) Medical Inspector-Generals, each with the rank, pay and emoluments of a Captain, who shall be employed only at Naval Hospitals and Laboratories, or as members of Examining and other Boards and Courts, and any other special duty on shore; twenty (20) Medical Directors, each with the rank, pay and emoluments of a Commander, to be employed at Navy Yards and Stations, and on board of Flag-ships, to direct and supervise all matters pertaining to the Medical De-

partment of the Navy Yard, Station, Squadron or Fleet to which they may be assigned for duty; and thirty (30) Surgeons, each with the rank, pay and emoluments of a Lieutenant-Commander, to be employed on board of first and second rate vessels of war, commissioned for sea-service, on Receiving Ships at Rendezvous and Barracks, and as Executive Officers of Hospitals, or on such special duties as the Secretary of the Navy may direct.

"SEC. 3d. *And be it further enacted:* That the President shall, in like manner, and in accordance with existing laws, appoint one hundred and twenty (120) Assistant Surgeons, each with the rank, pay and emoluments of a Master, including the Assistant Surgeons now in the Navy. *Provided:* that Assistant Surgeons of three years' service, who have been found qualified for promotion by a competent Board of Examiners, shall have the rank, pay and emoluments of Lieutenants; and further that all Assistant Surgeons shall be employed wherever the Secretary of the Navy may direct. *And provided further,* that no Medical Officer shall, in virtue of his rank, exercise command or authority in the Line of the Navy, or in any Staff Corps belonging thereto, except in the Medical Staff, and over those placed under the control of the Medical Department of the Naval Service."

The bill from which the above sections are taken is accompanied by the following petition:—

*"To the Honorable the Senate and House of Representatives of the United States, in Congress assembled:—*

"The Medical Officers of the U. S. Navy respectfully come before your Honorable Bodies, asking a reasonable and just rank in the military service to which they belong—a rank correspondent to their duties and responsibilities, and, in some degree, approaching that conferred upon the same class of officers in the other military services of the world.

"Our naval service ought not to be second in importance, character and dignity to any, and the influence of its future in the destinies of the world must be evident to all. The equality of its dignity has been partially, and but partially, asserted by the establishment of the highest grades of rank for the line of the navy. To permit the continuance for its medical corps of positions inferior to those of the same corps in other navies, we respectfully submit, may seem to confess an inferiority, either of our

whole service, or of the officers composing its medical corps.

"Prior to the establishment of the existing grades of the 'Line,' the highest Naval rank was that of 'captain,' and the medical corps reached that of 'commander,' the next grade below. Now, since the grades of admiral, vice-admiral, rear-admiral and commodore have been added to the service, we attain to that of captain, leaving us to the fifth in the military gradation, instead of the second, as we were before passing through the risks and labors it was our duty to encounter in the late war.

"Similar risks and toils, and no greater, deservedly brought to our brethren of the line honorable distinctions; we rejoice in their reward and respect the justice which bestowed it. To the medical corps of the army also were promptly given those distinctions which every member of a military service learns to prize; and we waited in the patient hope that a record of honorable and faithful service, not behind any, would bring to the naval medical corps their share of honorable acknowledgment, and not leave them a marked exception amid the general recognition.

"No such acknowledgment has yet come. The war left us, as has been shown, relatively to the line, four degrees lower in rank. Yet, whether as heads of our department in squadrons, or acting in detail, no charge of failure or of unfaithful performance of our duties has been, or can be brought against us.

"It should not take from the value of any duties, that they are, from their nature, most efficiently, when most quietly and unobtrusively performed: and are never brought dramatically before the public eye, unless, unhappily, want of skill or fidelity results in misfortune, destruction and disgrace.

"We ask an addition of one grade for the senior officers of our corps. The table\* appended shows that in the Navies of Great Britain, France, and Russia, officers of the medical corps reach the rank of vice-admiral; and, in the navy of Austria, that of rear-admiral. It is evident that such experienced military powers, relying chiefly as they do for existence on their armed organization, would not confer such honors upon a staff, except from the conviction of necessity; especially as, under the artificial class distinctions of those Governments—Line and Staff Officers are, as a rule, taken

\* Omitted here.—ED.



from those who in civil life occupy different grades in their social system.

"With us no such artificial distinctions are recognized, and under our enlightened institutions, both line and staff are taken from all classes of the Republic, the humblest ranks, and often the same families, being represented in both divisions of the service. Such being the truth, there can be, we hope, no one so ignorant of the institutions of his country as to imagine that any honors, the reward of public service, are the special right of any privileged class.

"As then our Republic permits no class prejudice or presumption to which the just claims of any of its servants shall be sacrificed, it may be asked, why should these honors and distinctions be withheld the medical corps of the United States Navy, which military discretion and prudence have exacted for 'Line' and 'Staff' from military powers, under which, class privileges, unknown to us, are recognized?

"In the above recited facts is found the best testimony of military experience for the necessity of a definite and a high medical staff rank in the interests of military subordination, and therefore we are spared the need of troubling your Honorable bodies with the ample argument upon a subject so conclusively settled.

"We present this memorial to your Honorable Bodies the more confident of its favorable consideration, because what we ask takes nothing from the rights and privileges of any—conflicts with no subordination, but rather sustains it; and although we make our petition upon its own merits, we have the satisfaction of knowing, we ask nothing which has not been sanctioned by some of the most illustrious of our brethren of the line. Nor can we think that among the intelligent and liberal minded of our service there are any so doubtful of their own honors, as to believe they are only valuable by contrast with those still neglected but allied corps, the members of which, in our service, with the same honorable motives and with equal sacrifices and no less zeal, are laboring for the honor and glory of our common country.

"All of which is respectfully submitted."

The petition was signed by a host of eminent names.

**ICTERUS AND PNEUMONIA.**—With reference to the clinical remarks of Oppolzer, on Icterus and Pneumonia (translated in our issue of Feb. 18), Dr. J. B. S. Jackson makes

the following comments in a note he has had the kindness to send us.

"I have met with quite a number of cases of pneumonia complicated with icterus in former years, and feel very confident that in all of them the disease was upon the right side, and that there was severe inflammation of the pleura about the base of the lung. How it can be explained if it be a fact I know not; but I always supposed that the function of the liver was disturbed in such cases, and in some way by the inflammation that was going on in its immediate neighborhood. The diaphragm only separates this organ from the seat of the disease; and we know that in severe cases of pleurisy not merely the pericardium, but the peritoneum sometimes becomes inflamed, though I do not think that peritoneal inflammation about the liver would be by any means essential to the icterus. As to the gastro-duodenal catarrh that Oppolzer speaks of, I do not remember anything of the kind in the cases that I have seen, and I cannot think that I should have overlooked it if it existed."

In consequence of these remarks of Dr. Jackson, a further examination of Oppolzer's lecture was made at our request, and the following extract was furnished us.

"People have tried to make the matter a very simple one, by assuming that the diaphragm, in pneumonia, cannot move because its pleural investment is inflamed together with the lung. In consequence of this, the pressure and the motion which the liver undergoes, and which are supposed to be indispensable in the process of secreting bile, are removed. If this were the fact, then icterus ought to occur only when the right lower lobe is infiltrated in pneumonia; while in point of fact icterus may appear during pneumonia of the right upper lobe, or of the left lung. The impeded motion of the diaphragm, therefore, is not the cause of icterus in pneumonia."

**NOTE UPON THE DIAGNOSTIC EXPEDIENTS OF DR. J. MARION SIMS.**—We take pleasure in laying before our readers the following note from a valued medical friend. We can assure them that were the name of the writer made known, they would recognize in him one of the most respected and trusted of the profession:

MR. EDITOR:—I had intended to send you a notice of the article of Dr. J. Marion Sims, of New York City, published in the

*New York Medical Journal* for January, 1869, and later issued in pamphlet form, its title running thus: "On the Microscope in the Diagnosis and Treatment of Sterility;" but your comments in last week's *JOURNAL*, together with the presentation of the main points insisted upon by Dr. Sims, render any detailed remarks, in the way of review, unnecessary. Perhaps you will allow me, however, to express my own impressions of the author and my ideas as to the particular subject he brings to the notice of the profession. It has been my good fortune to become acquainted with Dr. Sims, and I have, on several occasions, derived great gratification and no little information from conversations with him upon medical topics—especially upon those relating to his specialty, and several times respecting the highly important subject discussed in the paper whose title has already been given.

With reference to Dr. Sims as a physician and surgeon, there is, I conclude, but one opinion. He is recognized as a judicious, careful and most ingenious adviser and inventor; he is remarkable for quick diagnostic insight, gentle and yet effective manipulation, honesty of purpose, and a steady pursuit of investigations into "the Science and the Art" of Medicine which do him honor, and from which he is reaping both fame and fortune. Almost any amount of abuse and detraction has been lavished upon Dr. Sims, in times past; but it is probable that the vials are empty now—or, if anything more should be forthcoming, it will do him no harm. To those who really know him, he seems singularly simple, earnest of purpose and upright in intention, combining originality of design with readiness in planning modes or appliances of treatment. I have had opportunities of judging, and can testify to his delicate and modest manner of conducting operations and examinations—a manner, and an evident sincerity, which shut out at once all suspicion of coarse intent or purient imagination.

So much for the man and the physician; now for the scientific points at issue, or under review.

There are those—even in these days of abortion-procuring, and aversion to, or shirking of, the maternal lot—the maternal privilege—who consider *sterility* an evil. It is needless to insist upon the evident fact, that, in too many cases, it becomes a genuine calamity. Whoever, therefore, helps to render the barren woman fertile, is a benefactor, in the best sense. Oftentimes he may be the means of rescuing a family name from extinction. Indeed, there arise neces-

sities in society, which sweep away at once the "prejudices" which not only you, Mr. Editor, but many others—I may include myself—very naturally have cherished in this connection. You may see modest and delicate women, actuated by motives which no suspicion can impugn and no sneers dispel, go bravely through an ordeal confessedly most trying, and rewarded, too, in many instances, for their courage and their good faith! "*Honi soit qui mal y pense.*" I suppose you, Mr. Editor, from the just and kindly tone you adopt towards the author of the article in question, believe in his truthfulness and in his honor? This being so, if his reports of the successful treatment of sterility by rectifying the perverted uterine secretions when it is ascertained, by the microscope, that they destroy the spermatozoa, be reliable, is not this method of procedure not only admissible, but ought it not to be hailed by the profession, and by all the right-minded of the community, as a *scientific triumph* in obstetric medicine and surgery, and its originator be honored and respected accordingly? "*Palmas qui meruit ferat.*"

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Boston, Feb. 19, 1869.

THE NORMAL DIAPASON.—In order to be rid of our importunate demands that he would give us something on the physiology or pathology of the voice, a medical friend has sent us the following valuable communication. In it the Doctor anxiously inquires where the modern impositions on the vocal organs will stop? Our answer is—at the limits of the *vox humana*!

MR. EDITOR,—Apollo being the god and guardian of medicine as well as of music, I make no apology for offering a few observations on a subject which is just now agitating the minds of our English brethren, viz., the modern orchestral pitch.

It is well known by all who have examined into this matter that within the last hundred years the pitch has gradually risen nearly, if not quite, a whole tone of the musical scale. Some of the original scores of Gluck and of Handel have become therefore almost impossible for the ordinary vocalists of the present day. Within the last quarter of a century this upward tendency has increased in accelerated ratio. The inquiry naturally arises when and where is it to stop; and what is to be the effect if such disposition be not speedily arrested, or indeed turned back to its original starting point?

These are questions possessing not merely

an æsthetic or scientific interest. They are important, likewise, in a medical and surgical point of view, and their proper understanding will have a bearing upon the treatment of the various diseases of the vocal organs, which the medical man is now so much oftener than formerly called upon to consider.

It cannot be denied that in New England especially we are fast becoming a musical people. Every city and large town has its choral society, where the young men and maidens assemble to practise the music of a half century ago in the conventional pitch of the present day, and without any reference to the laws of vocal physiology. Can we wonder, when such strained and difficult vocalism as that contained in the oratorios of Mendelssohn and the choral symphony of Beethoven is attempted by hundreds and thousands of singers in this unnatural pitch, that broken-down voices and laryngeal diseases are the result?

The French were the first to appreciate the necessity of an immediate and radical change. On the 17th of July, 1858, a commission was appointed to investigate the subject and recommend what was best to be done. This commission included the names of such men as Halevy, Auber, Berlioz, Meyerbeer, Rossini and David. Views and opinions were solicited from England, Germany, Belgium, Holland, Italy and America. The result was the establishment by government decree of a new pitch, the standard of which for treble C should be 522 vibrations in a second. This was henceforth to be regarded as the normal diapason of France, and was lower by nearly half a tone than the standard to which the orchestral pitch had then been strained. This decree was promulgated on the 16th of February, 1859, and came into force in Paris and throughout France on the 1st of July in the same year.

Some of the leading nations of Europe adopted the new standard at once, and it has since been gradually extending over the continent.

England, with her national unwillingness to assimilate anything of French origin, has till now doggedly clung to the high pitch. And we in America have as pertinaciously seconded our brother Bull.

Quite recently, however, the subject has attracted the attention of medical men in Great Britain. Says Dr. Stone, one of the physicians to the Royal Society of Musicians in London, "My own experience, founded on many hundred cases observed at the Brompton Hospital, leads me to consider singing as now practised more injuri-

ous to the lungs and larynx than the moderate and well-guided practice of wind instruments. This cannot possibly be a necessary evil. I, for one, believe it in a great measure due to high pitch, and to neglect of physiological precautions. The public, indeed, sees little of what results; but the medical man has often to watch the premature breaking up of a fine voice and perhaps a healthy constitution, both of which, under careful management, might have been preserved."

The time has arrived when we, too, must succumb. The human larynx deserves at least as tender regard in the rude climate of New England as in France, Germany, and Italy. The contest is between the human voice, that most precious and delicate of all instruments, and its orchestral counterparts, which are, at best, its clumsy imitators. It is the duty of the medical profession to aid in a movement so essential, at the same time, to the interests of humanity and of true art. C<sub>7</sub>, M.D.

AMERICAN MEDICAL ASSOCIATION. — The twentieth annual session will be held in New Orleans, La., May 4th, 1869, at 11 A.M.

The following committees are expected to report:—On Diseases of the Cornea, Dr. Jos. S. Hildreth, Illinois, Chairman. On cultivation of the Cinchona Tree, Dr. Lemuel J. Deal, Pennsylvania, Chairman. On Excision of Joints for Injuries, Dr. J. B. Reed, Georgia, Chairman. On Alcohol and its Relations to Medicine, Dr. John Bell, Pennsylvania, Chairman. On the Cryptogamic Origin of Disease with special reference to recent microscopic investigations on that subject, Dr. Edward Curtis, U.S.A., Chairman. On Operations for Hare-lip, Dr. A. Hammer, Missouri, Chairman. On Clinical Thermometry in Diphtheria, Dr. Jos. G. Richardson, New York, Chairman. On Prophylactics in Zymotic Diseases, Dr. Nelson L. North, New York, Chairman. On Inebriate Asylums, Dr. C. H. Nichols, D. C., Chairman. On the Influence of the Pneumogastric Nerve on Spasmodic and Rhythmical Movements of the Lungs, Dr. Thomas Antisell, D. C., Chairman. To Examine into the Present Plan of Organization and Management of the United States Marine Hospitals, Dr. D. W. Bliss, D. C., Chairman. On the Utilization of Sewerage, Dr. Stephen Smith, New York, Chairman. On the Influence of Quarantine in Preventing the Introduction of Disease into the ports of the United States, Dr. Elisha

Harris, N. Y., Chairman. On Nurse Training Institutions, Dr. Samuel D. Gross, Pennsylvania, Chairman. On Commissioners to aid in Trials involving Scientific Testimony, Dr. John Ordronaux, N. Y., Chairman. On Annual Medical Register, Dr. John H. Packard, Pennsylvania, Chairman. On Devising a Plan for the Relief of Widows and Orphans of Medical Men, Dr. John H. Griscom, N. Y., Chairman. On Veterinary Colleges, Dr. Thomas Antisell, D. C., Chairman. On Specialties in Medicine, and the Propriety of Specialists Advertising, Dr. E. Lloyd Howard, Maryland, Chairman. On Library of American Medical Works, Dr. J. M. Toner, D. C., Chairman. On Vaccination, Dr. Henry A. Martin, Massachusetts, Chairman. On the Decomposition of Urea in Uræmic Poisoning, Dr. H. R. Noel, Maryland, Chairman. On the best method of treatment for the different forms of Cleft Palate, Dr. J. R. Whitehead, New York, Chairman. On Rank of Medical Men in the Navy, Dr. N. S. Davis, Illinois, Chairman. On Medical Ethics, Dr. D. Francis Condie, Pennsylvania, Chairman. On American Medical Necrology, Dr. C. C. Cox, Maryland, Chairman. On Medical Education, Dr. J. C. Reeve, Ohio, Chairman. On Medical Literature, Dr. E. Warren, Maryland, Chairman. On Prize Essays, Dr. S. M. Bemiss, Louisiana, Chairman.

On the Climatology and Epidemics of—Maine, Dr. J. C. Weston. New Hampshire, Dr. P. A. Stackpole. Vermont, Dr. Henry Janes. Massachusetts, Dr. H. I. Bowditch. Rhode Island, Dr. C. W. Parsons. Connecticut, Dr. E. K. Hunt. New York, Dr. W. F. Thoms. New Jersey, Dr. Ezra M. Hunt. Pennsylvania, Dr. D. F. Condie. Maryland, Dr. O. S. Mahon. Georgia, Dr. Juriah Harriss. Missouri, Dr. Geo. Engelman. Alabama, Dr. R. F. Michel. Texas, Dr. T. J. Heard. Illinois, Dr. R. C. Hamil. Indiana, Dr. J. F. Hibberd. District of Columbia, Dr. T. Antisell. Iowa, Dr. J. C. Hughes. Michigan, Dr. Abm. Sager. Ohio, Dr. E. L. Neal. California, Dr. F. W. Hatch. Tennessee, Dr. B. W. Avent. West Virginia, Dr. E. A. Hildreth. Minnesota, Dr. Samuel Willey. Virginia, Dr. W. O. Owen. Delaware, Dr. L. B. Bush. Arkansas, Dr. G. W. Lawrence. Mississippi, Dr. — Compton. Louisiana, Dr. L. T. Pimm.

Secretaries of all medical organizations are requested to forward lists of their Delegates as soon as elected, to the Permanent Secretary.

Any respectable physician who may desire to attend, but cannot do so as a dele-

gate, may be made a *member by invitation*, upon the recommendation of the Committee of Arrangements. W. B. ATKINSON.

WOUNDS OF JOINTS TREATED ON THE ANTISEPTIC METHOD BY CARBOLIC ACID.—Case I.—*Compound Comminuted Fracture, with Wound, of the Elbow-joint—Fracture of the Leg—Recovery.*—Patrick K., aged 40, a plasterer, fell from a scaffold of no great height, and was admitted into the Belfast General Hospital, under the care of Dr. William MacCormac, on July 31, 1868. Has been very intemperate, and in 1851 was partially paralyzed on the left side. On examination, the right leg was found to be fractured at the junction of its lower and middle thirds, and the soft parts around were much contused. Just above the inner condyle of the left humerus is a wound through which the finger might be easily passed through the joint to the opposite side of the limb. The lower end of the humerus was much comminuted, and a considerable piece of bone, a portion of the internal condyloid ridge, lay partially detached in the wound.

Dr. MacCormac was strongly urged to attempt excision of the elbow-joint, and to resort to amputation in case the extent of the injury should appear too severe to warrant such a procedure. The patient, however, refused to submit to operative interference. The wound was therefore dressed with lint soaked in carbolic oil, and the limb was placed upon an angular splint. Some oozing of blood took place, which coagulated upon the dressings. These were daily soaked in fresh oil, but were not disturbed until August 8, nine days after the injury. The patient complained of no suffering from the arm, and there was no local inflammation. The leg was put up on an outside splint, and, in consequence of the extensive bruising of the soft parts, proved more troublesome than the arm. When the dressings were removed from the wound a small quantity of matter was seen, below which healthy granulation appeared to fill-up the cavity. Carbolic lotion was now used in place of the oily dressing, and the wound continued to do well, the patient being reported convalescent six weeks after his admission.

When he left the Hospital he had regained very considerable power of extension and flexion of the affected joint, and retained the movements of pronation and supination.

CASE II.—*Compound Fracture of the Patella, with Wound of the Knee-joint—Recov-*

ery.—B., aged 45, of intemperate habits, fell whilst drunk on the edge of the foot-path, and was admitted on July 12, 1868, into the Hospital with an extensive contused wound,\* six inches long, stretching from one condyle of the femur across the front of the knee-joint to the other; the patella was fractured transversely, the tendon of the quadriceps extensor was torn, and the knee-joint was laid open, the articulating surfaces of the femur appearing through the wound. The limb was placed on a straight splint, and the wound was carefully cleansed and washed with carbolic oil, and then covered with lint soaked in the same. The circulation through the femoral artery was controlled by a tourniquet, and ice applied around the joint. On the following day the parts were somewhat swollen; the patient suffered some pain; pulse 142; tongue furred. These symptoms, however, gradually subsided, and five days later the pulse was only 100, the tongue was cleaner, and the swelling diminished. A slight amount of sloughing took place around the edge of the wound, but this was shortly followed by healthy granulation. Bony union took place between the fragments of the patella, and no ankylosis of the knee-joint occurred. The patient was discharged cured on September 28, and was then able to flex the limb at an angle of fifteen or twenty degrees.

CASE III.—*Lacerated Wound of the Wrist-joint—Recovery.*—A lad of 15 had his hand caught in a fluting machine in a linen mill. On admission into the Hospital a wound opening the wrist-joint was found to extend from the palm round the base of the thumb as far as the metacarpal bone of the index finger; the soft parts had been torn away, the trapezius and trapezoid were both injured, the scaphoid displaced backwards, and the joints of the second row of the carpus were laid open. The wound was dressed with carbolic oil, and a splint applied to the palm and forearm. Very little inflammatory action and suppuration occurred, and the wound healed rapidly, so that in a fortnight there was only a superficial granulating wound at the seat of injury. In five weeks the boy left the Hospital with only some stiffness of the wrist-joint and impaired movement in the thumb.

In the "Remarks" on these cases it is said, "It must, however, be borne in mind that similar results were sometimes obtained before carbolic acid was thought of, and therefore we cannot consider that this is necessarily an essential element in these cases; but it will probably be admitted

that the occurrence of three such cases at one time, and the uniformly satisfactory results obtained in all of them, would indicate something more than a mere coincidence.—*London Medical Times and Gazette.*

LIMITATION OF BIRTHS IN FRANCE.—Amongst Catholics, it is well known that contrivances for rendering married life childless are sedulously denounced by the clergy in the privacy of confession. But it is a great mistake to suppose that creed has any more influence on the prevalence of the customs in question than race has; for we know on indisputable authority that the Protestant pastors of the half-German Alsace preach openly on the matter, and that in spite of them the women express their determination to bear no more than two children. The effect of such customs on the health of the weaker sex has never yet been fully stated. As for national prosperity, it is quite true that a redundant population has its evils. There is the wretchedness arising from want of occupation, and if this be relieved by emigration, it may be said that every parent state may have to fight for its colonies first, and to fight against them afterwards. The history of the English Possessions in North America in the last century is illustrative enough of this. On the other hand, it must be conceded that all wars are not voluntary, and all are not the effect of a restless population unable to keep within its own borders. It is conceivable that the French of the twentieth century might find themselves menaced by invading hosts from the North and East, whom a population artificially limited, and looking to comfortable existence in France as their *summum bonum*, might find it difficult to resist.

We will only point out one duty which we think is overlooked by our neighbors. Man has relations to the Kosmos, and a debt to posterity. . . . It is not a redundant, but an ill-educated, ill-governed, selfish population that is to be feared. There is plenty of employment in England if the "hands" would but stoop to accept it. "Increase and multiply, fill the earth and subdue it." "Happy is the man who hath his quiver full; he shall not be afraid to meet his enemies." Such we hold to be sounder maxims of social economy than those which are acted on by the French democrat.—*Ibid.*

PROF. J. VILLE has discovered that the waters of certain lakes in Tuscany contain a large proportion of sulphate of ammonia.

## Medical Miscellany.

THE Medical Faculty of Harvard University gave a levee at the Revere House on Wednesday evening of last week, to the medical class of the session now just completed.

Among the specially invited guests we noticed Dr. McLaren, U. S. Army Medical Director of this District, His Honor Mayor Shurtleff (M.D.), and Dr. C. G. Putnam.

The elegant reception rooms of the Revere House were thronged by a body of young men of promising appearance. At nine o'clock the doors of the operating room were thrown open, where the function of the gustatory nerve was finely demonstrated, the preparations being excellent, and the supply of subjects ample.

**CITY HOSPITAL APPOINTMENTS.**—At the *con-cours* for the position of House Officers for the ensuing year, held Feb. 19th ult., the following gentlemen received the appointments.

Chas. F. Folsom—Senior House-Physician.  
Geo. B. Stevens—Senior House-Surgeon.  
Chas. B. Brigham—Second House-Surgeon.  
C. B. Shute—Junior House-Physician.  
N. P. Quint—Third House-Surgeon.  
Wm. F. Clarke—Ophthalmic Interne.  
A. Prondfoot—Ophthalmic Externe.

**A CRITICISM.**—A friend has spoken of the quotation from the *British Medical Journal* in our last issue, as though it were "nonsense in heavy-sounding words." How could he?

As will be seen by a notice in the advertising columns, the Commencement of the Medical Department of Harvard University will take place on Wednesday next. Our issue of next Thursday goes to press on Tuesday. Therefore the notice of the commencement cannot appear till the week following.

**ATTENTION** is called to the meeting of the Censors of the Suffolk District Medical Society advertised in this number.

THOSE intending to join the steamboat excursion of the American Medical Association to New Orleans, should send their names to Dr. Wm. B. Atkinson, 1400 Pine St., Philadelphia. Unless enough names are received the excursion will be given up.

THE following are the officers of the Butler Hospital for the Insane, Providence, R. I.:—John Carter Brown, President. Edward King, William Butler Duncan, Vice Presidents. Trustees, Amos D. Smith, Jabez C. Knight, John Kingsbury, Rufus Waterman, William Sprague, James T. Rhodes, Royal C. Taft, Tully D. Bowen, Amos C. Barstow, David Duncan. Moses B. I. Goddard, Treasurer. Robert H. Ives, Secretary. Joseph Mauran, M.D., G. L. Collins, M.D., J. W. C. Ely, M.D., Board of Consultation. John W. Sawyer, M.D., Superintendent and Physician. Samuel Worcester, M.D., Assistant Physician. Mrs. Sarah D. Lovett, Matron.

**RESIGNATION OF THE OFFICERS OF THE BOARD OF HEALTH IN NEW YORK.**—The one and only

apparent reason why these gentlemen resigned, was an attempt on the part of the Board to degrade their positions, assign them to unprofessional and undignified duties, and make use of them for political purposes. Similar attempts have been made from time to time, ever since the organization of the Board, but never, until recently, were there a sufficient number of men upon it of a character to sanction such action. That it is now so is much to be deplored. With few exceptions, the business of the Board of Health has, up to the present time, been conducted thoroughly, quietly, and in a manner eminently deserving the approbation of the medical profession. Its officers have been men thoroughly in sympathy with the profession, bound up in the same interests, and taking part, so far as the faithful discharge of their official duties permitted, in the same pursuits.—*N. Y. Medical Record.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATA.**—In last week's issue, page 70, in the extract from the *Dublin Medical Press and Circular*, for "he found," "he could pass a probe," read *there was found, a probe could be passed.* On page 72, 2d column, the paragraph headed "Carbonate of Lime in Pertussis," should read "*Carbolate of Lime in Pertussis.*"

**TO CORRESPONDENTS.**—The following communication has been received:—On Hay Fever, or Rose Cold; Translation of a paper by Gueneau de Mussy in *Gazette des Hôpitaux.*

**PAMPHLETS RECEIVED.**—Operation of Vesico-vaginal Fistula without the Aid of Assistants; with a view of the relative merits of the Clamp, Interrupted, Silver and Button Sutures. By Nathan Bozenian, M.D., New York.—Pathological Phenomena Generalized. By H. Backus, Montevallo, Alabama.

**DIED.**—At Auburndale, Feb. 25th, Dr. Edward A. Kittredge, 58 years, 7 months.—At North Haverhill, N. H., Feb. 17th, Dr. Henry B. Leonard, aged 51 years, 7 months, 9 days.—At Chicago, Ill., Feb. 3d, Dr. Elijah D. Harmon, of Bennington, Vt., aged 86 years.

**DEATHS IN BOSTON** for the week ending Saturday noon, February 27th, 99. Males, 50—Females, 49.—Abscess, 2—accident, 4—aneurism, 1—apoplexy, 2—asthma, 1—disease of the brain, 3—bronchitis, 3—burns, 1—cancer, 2—consumption, 13—convulsions, 2—croup, 7—debility, 4—diphtheria, 3—dropsy of the brain, 1—dyspepsia, 2—erysipelas, 2—scarlet fever, 13—typhoid fever, 1—disease of the heart, 3—hernia, 1—disease of the kidneys, 1—inflammation of the lungs, 9—old age, 7—paralysis, 1—peritonitis, 1—premature birth, 2—puerperal disease, 2—pyæmia, 1—syphilis, 1—whooping cough, 1—unknown, 2.

Under 5 years of age, 43—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 15—above 60 years, 18. Born in the United States, 66—Ireland, 24—other places, 9.

## BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MARCH 11, 1869.

[VOL. III.—No. 6.]

## Original Communications.

ATROPINE; ITS PHYSIOLOGICAL ACTION,  
AND ITS USE IN TETANUS.

By ROBERT AMORY, M.D.

HAVING had an opportunity of trying two well-known and violent poisons in some cases of tetanus, I thought it might be interesting to publish some account of the effects of these remedies, and must ask for a brief space in your Journal.

Two forms of tetanus are recognized, the idiopathic and traumatic; names which indicate their supposed origin, but which reveal our ignorance of the pathological conditions under which they may occur. Tetanus may follow a slight injury, or some more serious wound. Dr. Dewees, in the *Medical Gazette*, considers\* "that in idiopathic tetanus a very frequent first step is sudden arrest of violent perspiration; and that certain reflexive acts may be thrown upon some disordered or impressible cerebro-spinal centre, causing convulsive muscular manifestations;" and goes on to show "how these repressed excreta act specifically, abrogating or over-exciting the nervous functions, thus producing all sorts of incurrent disorders." If this be so, the same effects which cause the disease, unless modified by some remedial or restraining action, tend to increase its manifestations. In accordance with these principles veterinary surgeons try by tremendous doses of aloes and other purgatives to relieve the system of excreta, and allow the animal to recover. Sometimes this treatment meets with success, especially in the form called idiopathic, but, generally, the prognosis is made (and correctly) that the animal will die.

The animals generally die from asphyxia or exhaustion, and in frightful convulsions. It would seem from what is known of the pathological condition produced by tetanus, that the sympathetic nervous system is in

an abnormal state, that of continued excitability, in which there is spasmodic contraction of the capillaries as well as of the voluntary and involuntary muscular system.

The pathological investigations made after death from tetanus, throw but little light upon our knowledge of the disease. The results are very often contradictory or doubtful, and have often been explained by a reference to the position of the body examined, in which extravasated blood was shown to gravitate towards certain points.

Chloroform has a restraining influence upon the tetanic spasms, but they recur as soon as the inhalation ceases. Before speaking of Belladonna as a remedy, I should like to notice some of its physiological effects.

Atropine seems to be poisonous to all animals, provided it is received and retained in a sufficient quantity in the blood. Herbivorous animals appear to eliminate the poison very rapidly, and both belladonna and atropine, in doses sufficient to kill several men, have been borne by goats, rabbits, guinea pigs and sparrows, with no inconvenient symptoms beyond dilatation of the pupil and diarrhoea. In carnivorous animals, however, its poisonous effects are very manifest, even in minute doses. Two milligrammes ( $\frac{1}{36}$  of a grain) produce cerebral trouble and serious accidents in man. If, however, fatal poisoning by this drug occurs, it follows very soon after its administration, as the drug is very rapidly eliminated.

Slight doses accelerate the capillary circulation, reducing the calibre of the arterioles, to 1-3 or 1-2 (by micrometer) their normal size. This retraction of the blood-vessels is not uniform, but the walls of the arterioles become unevenly contracted in undulations.\* The diminution of calibre coincides with the acceleration of the circulation. Hayden† has concluded that this constriction is due to reflex action. For in cutting the integument of a frog's leg this same phenomenon occurs. The sciatic

\* Dec., 1862.

\* Wharton Jones, Med. Times and Gazette, 1857, p. 27.  
† Dublin Quarterly Jour. of Med. Science, Aug. 1862.

nerve contains some filaments of the sympathetic system also, so that we must not be surprised to find that the constriction produced by this operation is not as marked as that caused by the atropine. Hayden also notices the coincidence of accelerated circulation *with* the constriction. These effects on the circulation continue but a short time, and the arteries soon return to their primitive condition. The veins do not diminish in volume.

If, however, the dose be larger, the circulation slackens, and then completely stops. All the vessels are gorged with stagnant blood, a perfect hyperæmia results. This stasis commences in the venules and then ensues in the capillaries and arterioles. The blood stops in the artery only after the stasis occurs in the capillaries. These same effects occur, also, when the drug is applied to a portion of the circulation under microscopical observation.

The effect of the smaller dose is exciting, and its local application seems painful to the frog. In the denuded skin of man the pain is compared to that produced by a hot iron.

In larger doses it seems to paralyze the vaso-motor system; the flesh has a blood-red appearance, and with the microscope is seen to be in a state of hyperæmia. These peculiarities have been also observed in the mesentery of the rat, and in the ear of rabbits. Meuriot\* would then consider atropine as a vasculo-cardiac agent, and to his memoir, mainly, I am indebted for much of my knowledge of its action.

With regard to its qualities as an anæsthetic, Meuriot affirms that superficial neuralgia derives much benefit from atropine if applied topically. In small doses, however, exhibited by the stomach, I know of three cases of nervous headache which have been often and decidedly relieved by belladonna. In fact, homœopaths prescribe their sugar-plums of belladonna for all headaches of this kind, and their success is notorious.

The inconvenience of hypodermic applications of atropine is the severe pain caused by its contact; which, as I have already said, has been compared to that caused by a hot iron. This may persist for two or three days, and is supposed to be owing to the trouble in the capillary circulation of the skin. We see the same conditions in severe chillblains. This drug never destroys sensibility, but may induce analgesia.

Nerves in contact with atropine preserve

their excitability, and the contact of the electrodes causes contractions, reflex movements, and cries.

In frogs peripheric sensibility is diminished, but this is not the case with other animals experimented upon.

Its action upon the spinal cord as compared with strychnine and bromide of potassium is peculiar.

Strychnine produces an exaltation or exaggeration of the excito-motory functions dependent upon this central organ. The bromide diminishes the activity of these functions, whilst atropine has an intermediate action, but with a tendency to their increase rather than their diminution. The effects are in proportion to the dose administered, large doses tending to a stasis, the smaller to a diminution of blood in the spinal meninges and nerve-substance.

It would seem strange (if the foregoing summary of the physiological action of belladonna be correct) that this drug should be recommended in tetanus. If in this disease there is congestion of the nervous centres or peripheries, we shall be increasing rather than diminishing the determination of blood to the capillaries and to the spinal cord, unless we should use much care in apportioning the dose; as we have seen that it is *only* in small quantity that atropine tends to diminish the amount of blood in the spinal meninges and nerve-substance. But it would be a very difficult matter to determine an amount which in every person should produce the same effect. It would be only by carefully watching that we could produce a modification of the tetanic spasms and keep the action of the drug within the limit. Thus, much caution would be required in the application of the drug to those cases in which we wished to produce oligæmia or hyperæmia in the tissues of the body.

Oligæmia of the brain resulting from a deficiency of blood-globules acts in the same way as a section of the spinal cord, or an exaggeration of the excito-motor power, and therefore we must beware, lest in avoiding Scylla we fall into Charybdis.

It may be said, that the physiological action of drugs upon man and animals is not subject to the same laws, and, frequently, does not produce the same effects. This cannot be exactly true with this drug, as its action, so far as at present known, is the same upon man and animals; provided that the drug has entered the venous circulation in a form sufficiently concentrated. Some animals can so rapidly eliminate it, that only a quantity insufficient to produce tox-

\* Paris, 1868.



ical effects, is present in the capillary circulation at one time, and hence their apparent immunity to its baneful action.\* That the urine of a goat fed with belladonna leaves was injected into the stomach of a dog with fatal results, and that his urine caused dilatation of the pupil in another dog, is a very curious fact; and shows that a dose which a dog cannot quickly enough eliminate may remain in a goat's bladder, unabsorbed into the capillary circulation. If the nrethra of the goat had been tied up, imbibition of the poison and prevention of its elimination would probably have produced a different result.

† The action upon the pupil results from a destruction of the excitability of the fifth pair of nerves. Electrization, and the action of certain exciters of muscular contractility (myotiques) upon atropinized eyes seem to show that the sphincter of the iris will preserve its power of contracting. But the feeble action that is observed from the exhibition of atropine after the section of the great sympathetic, and the different results obtained from electrization of eyes under the influence of atropine, depending on the destruction or integrity of the sympathetic nerve, seem to indicate that this drug has an exciting action upon the terminations of the sympathetic. The demonstration is also given in the effects of atropine on eyes of which the motor ocnularis communis is completely paralyzed, and experimentally on animals when the sphincter iris is destroyed. Belladonna is not a hypnotic but possibly a stupefying narcotic. In small doses it induces agitation and insomnia, in large doses stupor, in intermediate doses dreams and general tremblings.

The effect upon the temperature has been found by numerous observers to be an increase of from 1-2 to 8-10 of a degree centigrade.

Atropine causes dryness of the skin and of the mucous surfaces, probably from a re-absorption of the liquids on account of the increased rapidity of the circulating current. Thirst from atropinization may be thus accounted for. The local action of the drug upon the mouth produces salivation. As the peripheric sensibility is also diminished, the secretions are decreased. In this state acetic acid placed upon the tongue does not salivate.

Small doses augment the pressure of the blood in the kidneys, large doses diminish the pressure, and thus, according to Ber-

nard,\* in the former case we obtain diuresis, and in the latter suppression of urine.

M. Behier † recommends for tetanus subcutaneous injections of the valerianate of atropia along the nape of the neck, and gives the following formula:

R. Atropiæ valerianatis, .30 = grs. v.  
Aque, 30.00 = ʒi.

Of this 5 drops to be injected every two hours. Pescheux (Verneuil) reports a case of tetanus relieved by subcutaneous injections of atropine sol. 1-100. Three-fourths of the syringe of Pravaz (3 grammes) were injected, in doses of 10 drops at a time. Symptoms of atropic poisoning (slight) occurred, and the tetanus disappeared.

#### ATROPINE AS A REMEDY FOR TETANUS.

On the 2d of April, 1868, I received a request from Dr. Stickney to visit a horse suffering from an attack of lockjaw, in a stable in my vicinity. On inquiry I found that the animal had been ailing for a few days, and that sulphur in large quantity had been given by the hostler in charge. He had not eaten anything since Friday, and had had but little discharge from the bowels or bladder. The facial muscles and those of the neck were very rigid, though elsewhere they were but slightly if at all affected. The animal could not open his mouth, nor could it be forced open. Dr. S. had ordered him small doses of prussic acid by the rectum every two hours.

Three days afterward I was told that Dr. Stickney had given me the liberty of resorting to any expedient that might be suggested, and I went again to see the horse. He was respiring rapidly and was in much distress, and the spasmodic contractions were more extended and severe. The eyes were half closed.

It is unnecessary to give more details. The peculiarities of tetanus are well known and easily understood from the descriptions recorded in standard works. The disease had increased very rapidly during the twenty-four hours, and now there was no muscle which was not tense in a greater or less degree. Several methods occurred to my mind to try as alleviations of the spasms, as a cure was now out of the question. I had in a previous case tried hydrocyanic acid unsuccessfully. Strychnine and electricity I thought of, especially the latter. However, upon reflection I considered it advisable to ask Prof. Brown-Sé-

\* N. Y. Medical Journal, 1868, p. 278.

† Meuriot, sur la Belladonne, Paris, 1868, p. 137.

\* Leçons sur les Liquides de l'Organisme, 1859, tome II, p. 155.

† Dict. de Med. et Chir. Paris, Baillière et fils, 1866, tome IV, p. 86.

guard, what drug it would be advantageous to experiment with. Several drugs were discussed, but the one he preferred was atropine, and, at his advice, I publish the record of the experiment. I procured one-sixth of a grain of the sulphate of atropia, which I dissolved in two drachms of water.

At 7 P.M., on the same day, I injected subcutaneously, according to the advice of this eminent physiologist, this solution in three different doses (with ten minutes interval between each) under the fore-shoulder. The animal was under the influence of chloroform for ten minutes before the first injection was made, in order to prevent any serious agitation.

In half an hour after the last injection he discharged a moderate quantity of urine; and, as he appeared much easier, I left him for an hour. On my return I found him still more comfortable, and again three hours after the hostler told me that he had been lying down and had got up again; the muscular spasm was a little reduced, especially in the hinder part of the body.

On the next morning, the man showed me about a halfpail of soft feces that the horse had passed during the night, and said that the bedding was well soaked with his urine. I then obtained one grain more of the sulphate of atropia, which I dissolved in eight pints of water. I directed that one pint of this solution should be injected into the rectum every hour, and that between the first and second doses they should inject some milk and water. The first injection was made at 7 P.M. At 3 o'clock the man came down and said that they had succeeded in opening the horse's mouth, that he was in a great sweat, and that he had been trying to eat his bedding; he wished to know what he might give him to eat. I directed first that the medicine should be omitted; second, that they should boil some carrots and squeeze their juice into a pail of water, put in this a handful of bran and a wine-glassful of alcohol; that while this was preparing they should give him some water if he could drink it. In an hour afterwards I found him bathed in a profuse sweat, the muscles surprisingly relaxed, and the animal drinking water of his own accord from a pail. His mouth was partially open, and the eyelids so drawn up that with difficulty could I see the iris. He had drunk some of the liquid food, prepared as directed, but did not like it, probably on account of the alcohol. So I was ordering some other mixture when Dr. Stickney appeared. He was much surprised on seeing the change in the horse,

and we were both sanguine (too much so as it afterwards proved) of the animal's recovery. He said that he had never seen so sudden a change in tetanus in a horse. I asked him to prescribe the diet, and soon we left. On my return, three hours after, the animal had passed a large amount of feces, and much urine. His mouth was still open, and the muscles much relaxed, but *not* so much as on my previous examination. I therefore ordered another pint of the diluted medicine to be placed in his pail of water. He had just drunk a quantity of oatmeal gruel, and had lain down and got up again several times. Still, as the spasms were apparently stronger, I considered it important to give another dose of atropine. Two pints had been injected, making a quarter of a grain of atropine introduced into the rectum. At 9 o'clock the next morning (Wednesday, 7th) I found on inquiry that the horse was dead. On an investigation I found that at 5 o'clock a noise of kicking was heard in his stall, and the man on going down found the animal throwing his head round while lying on his side, kicking violently with all four feet, and bathed in sweat. Evidently, from his description, the horse was in a convulsion, which lasted twenty minutes or so, after which the animal expired. He said that the muscles were not very stiff, not so much so as before the atropine had been given.

A natural question is suggested, whether this was a case of traumatic tetanus? There was no proof that it was. The horse had been lying idle all winter in a cellar stable, and had been shod four weeks before his attack. He had been exposed in a paddock to our last severe snow storm, and shortly after began to ail.

#### ATROPIE VALERIANAS.

June 27th, 1868.—Tetanus. Colt 1 year old. This disease manifested itself June 26th, P.M., two weeks ago, after castration.

This morning the long muscles of the neck are distinctly marked by tension of their fibres. The membrana nictitans closes and opens itself when a hand is placed near his head. As in the last case there is hyperæsthesia of the skin. The hind legs appear stiff, though the individual muscles are not particularly tense. The wound in the scrotum appears well. There is no swelling of the sheath or neighboring parts. There is a slight running of serum from the scrotum down the legs (this I understand is perfectly normal, and another *healthy* colt, castrated at the same time, shows the same phenomenon. Respiration appears easy,

and the animal can chew grass slowly, and drink water, though the latter is swallowed more noisily and with more difficulty than is usual with horses. Fæces have passed recently and appear moist. The man in charge says that he has passed urine, but of this I have my doubts. The man is not to be relied on, as he is apt to speak as he thinks he is desired.

I administered subcutaneously a solution of atropiæ valerian., containing a little less than 1-24 gr. The puncture apparently gave a good deal of pain, though he did not seem to mind the injection of the fluid. He afterwards ate and drank as before the injection. The pupil was not dilated half an hour after the injection, nor was there any amelioration. I left directions for 1-50 gr. to be taken two hours after, and 1-24 gr. two hours after that, and another dose at 9 or 10 P.M.

The directions were carried out and a large amount of the drug was administered per rectum.

The physiological action upon the *iris* was very marked, but the disease had gained ground and the animal died three days after I first saw him. The colt had taken 2½ grs. of the drug in all. In this last case no effect upon the tetanic symptoms was observed. The disease increased, in spite of the drug, and this even while the system was showing the physiological action of this drug.

Perhaps it may be of interest to the readers of this article to give the conclusions regarding the action of Belladonna arrived at by M. Meuriot in the *brochure* before alluded to:

I. "Atropine is the active principle of belladonna, and assumes all the properties of this solanum.\*"

II. "The intensity of its action varies with the species of animals. Herbivora are less sensible to its action than the Carnivora. In man its poisonous action is the most violent; but no animal is exempt.

III. "Its action also varies with the dose employed; for small doses accelerate the heart's pulsation and augment the vascular tension; poisonous doses diminish the tension and modify the cardiac pulsations.

IV. "Belladonna is a vasculo-cardiac poison, in the classification of M. Sée. Its action produces especially the innervation of the heart and of the vessels.

V. "The varied phenomena produced by

\* In this family are also included tobacco, henbane, datura, stramonium and the dulcamara; as also the tomato, egg-plant, potato and capsicum. PROF. A. GRAY, p. 456.

Atropine depend mostly upon its primordial and elective action, or are due to the elimination of the poison.

VI. "Atropine acts upon the heart through the pneumogastric nerve, whose peripheral extremities are paralyzed. It augments the frequency of the cardiac pulsations.

VII. "In a small dose it augments the tonicity of the vascular muscles; in a poisonous dose it diminishes, and even destroys this; whence the application of Belladonna to epilepsy, in which the access seems to be due to modifications of cerebral circulation.

VIII. "The variations of the arterial tension are subordinate to the state of excitation or paralysis of the muscular coat of the vessels.

IX. "In small doses atropine accelerates the respiration; in poisonous doses it diminishes its frequency.

"The acceleration of these movements depends upon the excitation of the respiratory centres; the consecutive retardation, upon a paralysis of the extremities of the vagi nerves; whence its application in the treatment of asthma.

X. "Atropine in a therapeutical dose, increases the activity of the excito-motory functions of the spinal cord.

"In a poisonous dose it exaggerates the reflex power till it may produce convulsions.

XI. "Atropine *always* produces agitation, insomnia, delirium, and in a poisonous dose, coma; it is not at all a narcotic.

XII. "Atropine is eliminated by the kidneys, by all the mucous surfaces, and sometimes by the skin of man. Its elimination is always rapid; so that its action is of short duration.

XIII. "The effects due to elimination are numerous, viz.: redness of the mucous surfaces and of the skin, frequent desire of micturition; colic; anal and vesical tenesmus; profuse sweat, diarrhœa, &c.

XIV. "The redness and dryness of the mucous membrane explains aphonia, dysphagia, dysuria, &c.

XV. "Not only are all the secretions of the mucous membrane diminished, but there may be also, on account of the activity of the circulation, a rapid reabsorption of all the liquids which have exuded from mucous surfaces or from wounds; whence its advantage in exaggerated secretions, and its effect upon coughs, &c.

XVI. "Atropine, applied locally to the tissues, produces an activity of the capillary circulation, and, in a considerable dose, true hyperemia and sanguineous stasis.

"Angina and erythema produced by bel-

ladonna are analogous to the inflammatory process.

XVII. "The modification of the urinary secretions are dependent upon the variations of the arterial tension.

XVIII. "Belladonna is not a paralyzing agent to the smooth muscular fibres; it produces no phenomena of paralysis except in a very powerful dose, and in these cases it follows exaggerated contractions; thus it is of benefit in incontinence of urine and of the faeces, in paralysis of the bladder, in constipation, irreducible hernias, &c.

XIX. "Atropine has no elective action upon the sensitive nerves. Its local application is always followed by acute and persistent pain. Atropine acts only upon nerves in a state of hyperesthesia and often determines analgesia, but it should be applied directly upon the seat of pain (*les nerfs affectés*).

XX. "Small doses of atropine augment, toxic doses diminish, the temperature.

XXI. "Atropine, especially, possesses the property of causing dilatation of the pupil, and this is its most constant and persistent effect.

"It paralyzes the terminal branches of the third pair of nerves; this is the only fact well shown by experimental physiology, in the study of the hyoseyamus also. (Gubler, Mydriasis caused by Belladonna.)

"To this paralysis of the ciliary branches of the nervous motor ocularis communis is attached the paralysis of the muscle of accommodation.

XXII. "Certain experiments and several considerations that have been made public by the author, tend to show some exciting action upon the sympathetic nerve or upon the *dilatateur*. However, a more vigorous demonstration is still essential." \*

#### INTERESTING AND UNUSUAL CASES OF TRAUMATIC INJURY OF THE EYE.

Read before the Boston Society for Medical Improvement, Feb. 22d, 1869, by HENRY W. WILLIAMS, M.D., President of the American Ophthalmological Society; Ophthalmic Surgeon to the City Hospital of Boston.

*Fragment of Steel discovered in the Retina by means of the Ophthalmoscope, four months after its Entrance into the Eye.*—Feb. 13th, 1869.—I saw Mr. P., whose left eye had been struck by a fragment of a steel die four months previously. He described a considerable sub-conjunctival ecchymosis as having been the chief symptom observed at the time of the injury, and after this became

reabsorbed, at the end of a few days, his eye had become, and still continues, sufficiently good to allow him to resume his work of straightening blades of a machine, along which he takes sight with this eye as he has always done in preference to the other, this being as he has thought his best eye, and he being left-handed. He still reads a newspaper print with this eye, and reads No. xii. of test types at ten feet. Thinks it quite impossible that any fragment of steel can have entered the globe. His pupil is somewhat dilated and immovable, and the iris has a darker color than in the other eye. By oblique illumination, a small cicatrix is visible in the sclerótica, in the region formerly the seat of the ecchymosis; but no opacity of the transparent media can be found. His field of vision is free from obscurity, except in a small space towards the upper and outer portion, where he does not perceive objects.

Examined with the ophthalmoscope the larger part of the fundus of the eye appears normal. At the lower and inner part of the retina, in the direction indicated by the obscure spot in the field of vision, and opposite to the scleral cicatrix, is to be clearly seen a small wedge-shaped fragment of steel, having its point imbedded in the ocular tunics, and a considerable part of its dimension standing out from the retina into the vitreous. No opacity of vitreous exists in its neighborhood. An agglomeration of pigment has formed in a small circle about it, and there is a faint appearance of choroidal injection at one point only. The optic disc is slightly injected and its outline rather ill-defined. This alteration, though having no apparent relation of continuity with the changes in choroid and retina in the vicinity of the foreign body, is yet a very important evidence of want of toleration of the presence of the steel within the eye, and is of interest as regards the question as to the mode of propagation of sympathetic inflammation from one eyeball to the other.

*Rupture of the Sclerótica and Dislocation of the Crystalline Lens beneath the Conjunctiva, by a Blow from a Cow's Horn.*—Feb. 18th, 1869.—I saw Mr. P., who in stabling his cow, a fortnight previously, was struck a sudden blow with her horn in the right eye. Only very moderate pain was felt at or since this time. His condition is as follows: The crystalline lens lies beneath the conjunctiva, between the cornea and the outer canthus, the rent in the sclera through which it passed being concealed behind it. The sclerótica also bulges somewhat at the

\* Meuriot, op. cit. p. 133, et seq.

upper side of the cornea. The fundus of the eye cannot be seen with the ophthalmoscope on account of turbidity of the internal media; but the cornea is uninjured and transparent. The patient complains of only slight annoyance from the presence of the lens in its unusual situation, and the eye is only moderately injected.

The lens was at once extracted, and a suture inserted to bring together the edges of the wound in the conjunctiva and prevent any loss of vitreous. Vision is not to be hoped for, the eye having undergone, as it were, a crushing process, but there is reason to hope that the eye may retain nearly its normal size and appearance.

### "A CASE OF HERPES ZOSTER."

By ALBION CORB, M.D., Webb's Mills, Me.

The elaborate article with the above title in the *JOURNAL* for January 28th reminds me of a case of the same disease, in some respects the parallel of the one there given, which occurred in my practice.

E. B., of Casco, Maine, about 50 years old, robust, muscular, vigorous and healthy, was attacked, just about two years ago, with shingles, affecting the left side of the neck and face. Immediately on the appearance of the eruption, the left side of his face became paralyzed, exhibiting all the ordinary symptoms of facial paralysis, the most striking of which, to a casual observer, were the permanently open eye, the mouth drawn to the opposite side, and the complete want of expression in the affected side. As he treated his disease with "sovereign contempt," and kept about his ordinary business, he was not very closely observed, but the two diseases, if two they were, ran their course concurrently, and disappeared together, and Mr. B. has been perfectly well ever since.

It may be proper to state here, that, by a curious coincidence, I had under treatment, at about the same time with Mr. B., two or three cases of herpes zoster (no others of the face), and two or three cases of facial paralysis, but this is the only instance in which they occurred together.

Two or three days ago my attention was called to another case which may possibly have some bearing on the connection or relation between herpes zoster and the underlying nerves.

Capt. —, of Casco, had, about six years ago, what he and his attending physicians called shingles, covering a belt of the ordinary breadth, about the middle of the

right side of the chest. The principal distress, during the course of the disease, arose from a neuralgic pain, of a severe burning character, seeming to be seated deep in the tissues beneath the eruption. The eruption ran its usual course and disappeared, but not so the pain. This has changed neither in degree, character nor location, but has persisted up to the present time, in spite of the efforts of physicians and others to remove it. From first to last, throughout the whole six years, it has affected exactly the zone formerly occupied by the herpes.

Feb. 10, 1869.

## Hospital Reports.

### DEPRESSION AND RE-PLACEMENT OF THE SUPERIOR MAXILLA (LANGENBECK'S OPERATION).

Service of DR. CHEEVER.

CASE I.—*Naso-pharyngeal Polypus*.—(Vide Surgical Cases for 1867.) The patient was a student, aged 19 years. Thirteen months previously to his entrance to the Hospital for his present disability, he had undergone an operation for the relief of disease of which this was the recurrence; and the history of the growth dated two years and a half before that time. Its development had given rise to the following symptoms: profuse epistaxis, complete obstruction of the nostril, and the discharge of a thin and offensive fluid. Examination discovered the presence of a firm, lobulated tumor pressing down on the soft palate and filling the upper and back part of the pharynx. The general condition of the patient was good, and the growth was not painful.

*Operation*.—It was removed by temporary depression of the right upper maxilla, as follows: The primary incision was carried from near the inner canthus of the eye, downward along the fold at the side of the nose, around the ala, and through the commissure of the upper lip. The flaps were reflected so as to expose the body of the bone. The symphysis of the jaw was divided along the hard palate, and a section made with a saw across the bone from the tuberosity into the middle meatus of the nose. The section of the bone was depressed, so that it was held only by its posterior attachments. The tumor was thus exposed and reached. Its attachments to the body of the sphenoid bone and to the upper and back part of the pharynx were

divided with some difficulty with scissors, and the point of section (two inches square) cauterized with strong nitric acid. The bone was replaced and held well in position by a wire around the adjacent incisor teeth. The soft parts were easily apposed and retained by silk sutures. The hæmorrhage was inconsiderable.

The constitutional disturbance which followed the operation was comparatively slight. With a dressing of equal parts of tincture of myrrh and water, the wound healed satisfactorily, and throughout the convalescence there was no complication to impede recovery. In nineteen days, the ligatures had all come away, and there was no purulent discharge. The bone was in excellent position, and motionless. After thirty-five days he was discharged well.

Symptoms of recurrence of the growth were noticed after eleven months. The nostril became obstructed as before, and there was a feeling of fulness in the head. Otherwise than this the tumor had caused no inconvenience. There was no appearance of any disease in the pharynx, but Dr. Langmaid, with the rhinoscope, discovered the fibrous mass occupying its former position and attached, like its predecessor, to the inferior aspect of the body of the sphenoid bone and to the adjacent region of the pharynx.

*Second Operation.*—The steps in the operation for its removal, the operation being performed at once, were almost identical with those of the former one, and the lines of section were in the cicatrices of those of the year previous. Owing, however, to the thickening of the bone in the course of healing, it was necessary to remove a small portion at the inner angle, just below the orbital process, in order to expose the growth. The tumor, which was of the size of an English walnut, was removed by section of its pedicle with scissors, and the bone was thoroughly scraped. The hæmorrhage was not sufficient to require ligatures. The bone and soft parts were apposed as in the former operation; a gutta-percha plug between the teeth and a bandage around the lower jaw, and over the head, aided in supporting the parts.

Convalescence, in this case, was more rapid, even, than in the primary operation. Without complication or drawback, recovery proceeded steadily, and after twenty-seven days he was discharged with the wounds perfectly healed, and the bone firmly in place.

*CASE II.*—*Naso-pharyngeal Polypus. Operation by Temporary Depression of both*

*Superior Maxille.*—The patient was a farmer by occupation, and was 41 years old. He had suffered from the presence of a growth in the posterior nares during the previous eleven years. Its first appearance was attended with profuse epistaxis. Its rapid growth, and the inconvenience arising from its presence induced him to submit to its removal by Dr. Peaslee, by section of the soft palate, after four years. An interval of health succeeded, in which he noticed nothing of consequence from the tumor; but thirteen months before presenting himself at the Hospital he felt symptoms of its recurrence. This recurrent growth had been attended with no pain, epistaxis or other grave symptoms, although the patient was anæmic, and his mental condition was depressed and anxious.

Examination discovered the following condition of things. Externally, the facial expression was unaltered. There was no protrusion about the region of the antrum. Both nostrils were perfectly occluded, one having been closed many months, while the other had remained open until within three weeks. The palate was pressed down by a tumor protruding from the roof of the mouth, of the size of a pullet's egg; its anterior edge extended to within half an inch of the alveolar border. It was elastic, painless, and without special tenderness. In the process of development it had absorbed the palatine process of the left superior maxilla, the edge of the bone defining its border. The pharynx was clear, below the soft palate, but completely filled above.

Deglutition, respiration and articulation were considerably impaired, and complaint was especially made of the difficulty in breathing, the sensation being of fulness and of a danger of suffocation.

*Operation.*—The size of the tumor and its situation in the median region, appeared to contraindicate operation on one superior maxilla alone. Temporary depression of whole upper jaw was accordingly effected, as follows: The primary incision through the soft parts was on either side of the nose along the natural wrinkle from near the inner canthi, around the alæ and through the commissure of the myrtiliform fussa of the lips. The flaps were freely reflected, so as to expose the bone beneath as far upward as the malar prominences. With a narrow saw the body of the bone was divided from the tuberosity, forward, beneath the zygoma on each side into the middle meatus. The septum nasi and the vomer were divided with strong scissors. Nothing but the posterior attachments of the upper maxillæ now

prevented their depression; and hinging on the pterygoid processes, the upper jaw was brought down so as to expose the tumor. Its attachments were found to be to the body of the sphenoid bone, and to the ethmoid. These attachments, except the first, were divided by the finger, and a section of the growth was made by means of scissors, as near the sphenoid bone as possible, the mass being too large to deliver altogether. With a gouge chisel the remaining portion was scraped away and removed.

The whole growth was in size and shape like a large lemon. In its centre it contained a cavity with the remains of broken-down tissue. Subsequent microscopic examination determined the structure to be distinctly fibrous.

The depressed jaw was restored to its position and retained firmly by silver wire passed on each side through the malar bones. The soft parts were apposed by silk sutures; and the whole physiognomy perfectly reinstated.

The hæmorrhage during the operation did not appear to be excessive, the blood escaping externally being only of moderate amount. The attendant shock was considerable, the pulse falling off at the last until it was hardly perceptible. Stimulants by enema rallied the patient in part, but throughout the day he remained in a drowsy, unconscious state after the effects of the ether had ceased. The condition of the patient was grave from the time of the operation forward. In three hours a diarrhœa developed itself, the dejections being frequent, black, tarry and offensive, as of altered blood. Meanwhile there was no pain or nausea; the patient took nourishment, stimulants and opiates well. The pulse ranged from 128 to 136, and was small, jerky and feeble. The whole appearance was that of a patient sinking from exhaustion. The expression was listless; the skin dry and harsh; the tongue brown and parched. During the forty-eight hours after the operation there was no essential change. The diarrhœa, abdominal pain and general exhaustion continued. The wound in the face remained quiet, without sign of reaction, and there was no complaint of pain in that region.

On the third day, after continued efforts at stimulation and at control of the diarrhœa, the patient began to show more favorable symptoms. The dejections became less frequent and more natural in appearance. The mental condition was more sane. Slight suppuration commenced in the wound.

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The surface was warm and moist, and general signs of reaction became manifest.

On the following day, however, he relapsed into the former state. Jactitation, muscular tremor and mental distress succeeded. The pulse was 124, and very small; the urine was retained and catheterization was necessary. The face and conjunctivæ assumed a sallow hue. Steady sinking proceeded in spite of the stimulants, which from the beginning had been taken freely, and on the afternoon of the fifth day, one hundred and twenty hours after the operation, the patient died.

The removal of naso-pharyngeal polypi, otherwise unassailable, by a temporary displacement, instead of destruction of the superior maxilla, is known as Langenbeck's operation.

Performed here, for the first time, in the case described above, it was *repeated*, successfully, on the *same patient*.

The second patient was treated in a manner novel, so far as we know, the operation including both superior maxillary bones. Although he succumbed, we cannot but think that there is nothing in the operation itself, which should render it a fatal one. We know, at any rate, that much more serious mutilation of the jaws and face, in removing cancer, is almost always survived. The hæmorrhage was moderate, and the shock should not be excessive.

Our patient was feeble and anæmic from suffering and abstinence. The pulse was poor from the beginning. He never rallied any higher than the state known as "prostration with excitement."

We should not hesitate to repeat the double operation on a suitable case, unless resort were had to a novel plan proposed by Ollier, to saw down the nose obliquely from above downwards, and operate through the upper meatus. In this way he removed a polypus weighing six ounces.

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## Bibliographical Notices.

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*The Preventive Treatment of Scarlet Fever.*  
By PETER HOOD, M.D. An article in the *British Medical Journal*, Feb. 6th, 1869. p. 117.

THE *British Medical Journal* has been lately favored with several remarkable articles—remarkable for the complacency with which the writers announce their ability to prevent disease, or, "next point of importance" (Hood), to treat it with unerring

success whenever occasionally appearing through the ignorance or carelessness of others. A few more such articles and journalism is over, and the profession itself ended—there will be no “suffering humanity” to relieve.

Dr. Budd's article we recently noticed in this Journal. He merely puts a stop to the disease; Dr. Hood comes up manfully to crown the work “with a matter of even superior importance—namely, the means by which we limit” the amount of disease in the individual attacked. Dr. Budd confined his observations to the destruction of the scarlatinal germ by “external appliances,” Dr. Hood supplements these observations by his “experience of the internal treatment of scarlet fever.”

“It is ten years,” says Dr. Hood, “since I wrote a book which I was bold enough to designate as *The Successful Treatment of Scarlet Fever*. . . . I have not lost a patient with scarlet fever” (did ever charlatan do better?) “since it was published, nor during many years preceding its appearance, when” (mark the caveat) “I have attended the patient from the commencement of the illness. I have been consulted in cases that have ended fatally, but this had been when the time for medical aid had passed, and the treatment which I advocated had not been employed”!

Delays are dangerous, says the proverb, but here they are fatal; Dr. Hood should be sent for early! After such neglect, “it must not be expected,” he says, “that malignant cases . . . can always be successfully treated by any form of treatment.”

But what does he do for it? Let him speak for himself:—“To maintain the integrity of the blood as much as it is possible is one great object in the treatment of scarlet fever. In proportion as we can accomplish this, so will our success in the treatment of the disease be satisfactory or otherwise.”

“I have never known convulsions to occur unless the most common premonitory symptom—namely, vomiting—had been absent; and I can also say that, when vomiting has been induced, the convulsions have ceased.

“In the ordinary run of cases the first symptom usually complained of is headache, next soreness and swelling of the throat, followed by vomiting, and we find that the afore-mentioned symptoms are relieved by the vomiting taking place. The healthy action of the liver is interfered with, and the bile, instead of taking its natural course, finds its way into the stom-

ach, and is invariably found in the matters ejected. Hence the importance of giving an emetic at the onset of the fever, if vomiting have not occurred. . . . There is more to be apprehended from the absence of vomiting than when it is in excess. The perverted course of the bile points to a defect existing in the liver, which defect is one of congestion. Here, again, we are called upon to assist nature in relieving this important organ; no medicine operates so beneficially as a dose of calomel and scammony. And if we take the appearance of the tongue as our guide throughout the whole period of the fever, and when it is otherwise than perfectly clean, administer gentle alterative medicines, to sustain the healthy action of the liver, we shall most effectually prevent dropsy from occurring, and avoid deafness and all the other sequelae attendant on this disease.

“When the stomach has been relieved by vomiting, either by the operation of nature or art, and the liver and bowels also, by the administration of an efficient dose of medicine, it is then the proper time to avail ourselves of the antiseptic property of quinine, which drug is, according to my experience, as powerful in destroying the scarlatinal germ as it is potent in the cure of ague. I do not hesitate to say that if the previous injunction as to the emetic and purgative are attended to, any medical man who has never before employed this medicine in the treatment of scarlet fever, will never employ any other when he witnesses the gratifying progress of a case only twenty-four hours after using it. He will find the pulse diminished in frequency, the soreness of throat and difficulty of swallowing scarcely complained of, obviating all necessity for the use of gargles, sponging, caustics, &c., the heat of the skin most sensibly decreased, and the restlessness, frequently so distressing a symptom, succeeded by a calm composure. In the worst forms of scarlet fever, in which the blood of the patient is in a dyscrastic state, indicated by virulent coryza, discharges from the mouth, eyes, and ears, owing to the disintegration of the mucous surfaces, it is imperative to administer iron with the quinine, and suitable doses of the tincture of sesqui-chloride of iron, or of the sulphate of iron, should be diligently persevered with; at the same time paying strict attention to procuring a daily alvine evacuation.”

It is no wonder that a physician, who intends to carry out such a course of treatment as indicated in the foregoing extracts, for a disease which in a large majority of cases



needs no "treatment," should wish to be called early; and certainly if his patient dies he cannot be said to lose him by scarlet fever. The wonder is that a "little girl" whose case is given as an example (we hope it will prove a warning also) could survive such management for "three weeks." It certainly was a marvellous recovery.

We see that Dr. Hood is not inclined to take Dr. Budd's dictum in the matter of disinfectants. It is a pity, for when two such positive authorities differ, science suffers. Hear him, and note the criticism on his colleague's way of putting things:—

"Before I finish this paper, I must refer to one other subject connected with the treatment of scarlet fever, which I regard almost as important as the use of quinine itself. This is the disinfection of the sick room by the employment of chlorine; and here I must differ from what Dr. Budd's experience has led him to say on this subject.

"Dr. Budd has not told us in what manner he has employed disinfecting agents, chlorine more especially, to enable us to judge whether his method of using them were likely to be efficient or not.

"My experience of the beneficial effects of a free use of chlorine is directly opposed to Dr. Budd's views, and I am able to state from my own observation that, if this gas be properly used in the sick room of the patient, *the contagion of scarlet fever will be confined to that room.* My method of using it is as follows: I direct large coarse towels to be saturated with a solution of chloride of lime" (strength not stated by the writer), "and hung over the backs of chairs, and a sheet to be hung in front of the bedroom door. We may judge of the quantity required for disinfecting the room, by smell and taste (!) on going into it. This process should be continued throughout the course of the fever."

Although the profession is usually quite ready to seize upon any measures promising to exterminate, or even to relieve disease, English physicians do not yet appear to practise according to "book," though published ten years ago, for Dr. Budd states that "every year scarlet fever slays from twenty to twenty-two thousand persons in England alone."

In short, the appearance of these two papers, with another (January 30th) announcing the discovery of the "*only possible source of tubercle*" and a method to bring its ravages "to an absolute and permanent close," in a journal of such high pretensions, indicates a state of medi-

cal science in the United Kingdom hardly to have been anticipated in benighted places on this side of the water. X. Y. Z.

We have a fellow-feeling for the afflictions of the *British Medical Journal*. It is like steering between Scylla and Charybdis for an editor to avoid, on the one hand, cramping the free expression of opinion, and on the other to keep his columns from being cumbered with chaff.—En.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, MARCH 11, 1869.

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THE hope we ventured to express in the JOURNAL of Feb. 11th, that the valuable letter from Dr. Dalton which we published in that issue would not be the last communication of the kind we should be able to offer, is now realized. Our readers are now addressed by "the Professor," who speaks to them as the *Autocrat* of our to-day's Editor's table.

*The Dental Cosmos: A Monthly Record of Dental Science.* Edited by J. H. McQUILLEN, D.D.S., GEORGE ZIEGLER, M.D. Observe, compare, reflect, record. Philadelphia: Samuel S. White publisher. New York, 767 and 769 Broadway; Boston, 16 Tremont Row; Chicago, 100 and 102 Randolph Street.

THE formation of a Dental School in connection with the Medical Department of Harvard University, naturally draws the attention of those engaged in medical teaching to the branch which has sought and gained their alliance. It soon becomes apparent that Dentistry has assumed an importance as a specialty of the healing art, which challenges for it an honorable recognition. The dentist of to-day stands in the same relation to the tooth-puller of a past generation as the surgeon of our time to the well-remembered worthy of the razor and the lancet, who trimmed his customer's hair or breathed a vein for him with equal skill and science.

Two arts are absolutely necessary to make old age tolerable; that of the optician and that of the dentist. Take away the old man's spectacles and leave his jaws to be dismantled without repair, and what will life be worth to him? No wonder those very sensible people we call savages, not

having either of these helps, expect their children to see that they are not left to such a fate. When the eyes of the venerable warrior can no longer read the literature tattooed on his enemy's skin, when he has lost his teeth and can no longer do justice to the *pièce de résistance* furnished by the last skirmish of his tribe, his eldest son kindly dismisses him by a single blow of his war-club to that better region where the good cannibals go, and become vegetable feeders as we charitably trust.

What would the old age of civilized life be—even in *Boston*—without convex lenses to help the failing sight; jaunty eye-glasses for public occasions, honest old straddling spectacles for solitude? No "Advertiser"—no "Transcript"—no "Atlantic"—no "Every Saturday"—no "Boston Medical and Surgical Journal"—would not the wretched dweller by the Frog-pond be glad to introduce the popular institutions of the South-sea islanders?

Or take that other wrong of advancing years, the bitterest insult to the decaying bodily fabric which precedes the last "disgrace and ignominy of our natures," as death is spoken of by Sir Thomas Brown. To have the broad many jaws, once glittering with enamelled ivory, changed to the miserable likeness of a turtle's, by the gradual absorption and thinning of their edges; to meet one's friends with a face that shuts up like an accordion; to mumble inarticulate words with organs that once held the listener captive with speech or song; to come back of necessity to the pulpy food of childhood, without its innocent appetite and unquestioning digestion—what a fate to think of! and yet that is what nature has in store for the old and for many who are not old, save that art comes in and with infinite skill and almost miraculous success arrests the progress of destruction and repairs and restores the waste that Time has already made. That was a most impressive testimony to the need of these organs to make life tolerable which was reported a few years since, in one of our periodicals, of a celebrated personage. He had lost his mind, he said, but that he could do without; but he had lost his teeth and could not eat—this was the burden of his old age.

Those who have been led to take an interest in dental matters will be glad to know where they can learn of the condition and progress of an art which is every day coming nearer to a science.

The *Dental Cosmos*, a monthly journal, published at Philadelphia, is an organ of the dental profession which has so many

excellencies that it deserves to be known outside the immediate circle of those for whom it is more especially intended. The object of this communication is to direct attention to it as containing much information which will prove useful to any intelligent practitioner.

The first point about it that strikes the reader is the handsome form in which it presents itself, comparing very well for elegance with that of the leading literary journals. The eye is next attracted by the great number of illustrated advertisements, by looking over which one may get a very good idea of many of the mechanical novelties, the chairs, plastic as cataleptic patients and rigid as these are, when any position is once fixed for them; the noiseless lathes; the remorseless forceps; the searching excavators; the wicked nerve-extractors—most of which we have seen and some of which we have felt, the greater number of us, and the many other contrivances which recommend themselves to the great community of dentists.

To give some notice of the character of this Journal, let us examine a few of the last numbers, and glance at one here and there of older date. And first as to the way the Journal is made up. The number for January, 1869, for instance, begins with twenty-five pages of original communications. Then, follow the pages of the Proceedings of Dental Societies. Then four pages of Editorial Matter. Then a Legal Opinion in Rubber suits—cases in court, not waterproof garments. Then "Periscope of Medical and General Science in their relations to Dentistry," sixteen pages. With regard to this last department, it is only justice to say that it is an admirable selection, which cannot fail to interest every medical reader. Few of our medical journals get together so many valuable selections in so small a compass. Dr. Ziegler shows an extent of reading and a good judgment in his management of this department deserving of special commendation.

The original articles are of various degrees of merit, from the most valuable practical papers of men whose skill is known to the world to the modest essay of the young practitioner whose intellectual first molars, just emerging, show promise of a better furnished mental arch by and by.

In this January number, which is taken as a specimen only because it is the last, the first article is a practical one on *pivot teeth*, which we learn have been rapidly falling into disuse, notwithstanding their advantages. When it is remembered that a

fang has been known to support an artificial crown forty years, as a writer in another number of the "Cosmos" tells us, mentioning the gentleman who had carried it all this time, we may see what advantages this mode of repairing damages must present in certain cases.

Dr. Evans, of Paris, known everywhere, writes on the Physiological Action of Nitrous Oxide Gas, a subject which is of course interesting in his hands. Dr. R. Shelton Mackenzie contributes a very curious and very pleasant paper on the Disin-terment of the Remains of William Rufus, historical, archæological and dental in its character. A second instalment follows of "The Inhabitants of the Mouth and Teeth"—a microscopic examination of the fauna and flora—the forests, meadows, mushroom beds, menageries and breeding places of that well-stocked region of the human body which we call ours, as if it were not the paradise of an innumerable creation for which we are the purveyors. Dr. Crowe writes about "Soap as a Dentifrice" and quotes Dr. Francis of New York—not referring to the labors of Dr. Bowditch, of which he should be reminded. An article by Dr. Latimer, giving the results of experiments on staining the dental tissues, and a new case of third dentition complete the list of original contributions, which may be read from beginning to end with profit and pleasure. Among the "Proceedings of Dental Societies" the report of the meetings of the Odontographic Society of Philadelphia is particularly interesting, as it has generally proved in preceding numbers. The microscopic preparations of Mr. Walmsley and those of Mr. Starr, specimens of both of which were kindly forwarded to the writer of this article, excited just admiration. Three microscopic botanical specimens of the former gentleman's preparing, presented by him to the writer, delight all who see them by their singular beauty. The senior editor of the Journal confirms some of his former results, to be mentioned presently, as to the effects of narcosis produced by nitrous oxide, and refers to some new observations as to their effect on the blood corpuscles. Then follow the numerous valuable excerpts from the different journals which have been already commended for their excellence as a selection.

This is certainly a good list of contents for any monthly Journal, and there is nothing in it as a whole which distinguishes this number as of more than average excellence.

Running over our file of the *Cosmos* for the

last two years, a few articles which happen to attract our attention may be referred to.

A valuable table in the number for February, 1867, gives the location of decay in 694 cases. Following this is a brief article in which we find this very striking and suggestive statement. "I will merely mention one analogy which is well known, and has, I think, been before mentioned in this connection, that in the teeth of neat cattle, as they roam their native pastures, decay is never known, while in their "artificial mode of life," in the swill-milk stables, the teeth suffer the same phenomena of decay as do those of man."

Prominent among the original contributions are those of the Senior Editor, Prof. McQuillen, on the microscopic anatomy of the teeth. His preparations, illustrated by figures in the text of his articles, demonstrate in the most satisfactory manner the *interglobular spaces* described by Czermak, and reproduced in the American edition of Kölliker's Microscopic Anatomy. The writer is familiar with these specimens, some of which have been sent him by Professor McQuillen, showing just the aspect figured by Czermak, and are constantly used in demonstrations before the classes at the Medical College. There was some unwillingness to accept the "interglobular spaces" which these very successful preparations were quite sufficient to overcome. Not more interesting, perhaps, but of more immediate practical importance, are Prof. McQuillen's experiments performed before the members of the Odontographic Society and the Biological and Microscopical Department of the Academy of Natural Sciences, to test the statement of Dr. B. Ward Richardson, of London, as to the fatal effects of nitrous oxide on animals. These valuable experiments, showing that animals readily recover from complete narcosis produced by the gas in question, are to be found in the number for last October. Since those experiments Professor McQuillen has kept a rabbit completely narcotized by the same agent more than an hour without any permanent injury.

Dr. Thomas W. Evans, of Paris, suggests the use of nitrous oxide liquefied by pressure. Liable to blow up, says the timid practitioner. Of course it is, says Dr. Evans—so is a soda bottle.—Why not a stub-twig flask in one's pocket by and by, with a hundred gallons, more or less, of condensed gas in the volume of a pint, with no more fear of its blowing up than we have of a gun or a pistol?

A singular case of hemiplegia, accompa-

nied by the symptoms long known under the somewhat equivocal name "spinal irritation," apparently relieved by the extraction of decayed teeth, is reported by Dr. J. L. Suesserott in the number for November, 1868.

Dr. Flagg's four articles on "Arsenious Acid as a Revitalizer of the Dental Pulp," will be valued by all the working members of his profession.

And lastly, we may mention as of the first importance for the consideration of every dentist, an article by Dr. J. T. Codman, of Boston, on "Artistic or Expressional Dentistry." It is perfectly true, as Dr. Codman says, that the natural teeth are the best guide in replacing those which are gone; but if these are all lost, judgment and the eye of an artist are necessary to give or restore the normal expression.

How many pitiable instances does this very useful paper recall of friends whom we have known as public characters, whom we knew by their portraits, whose whole physiognomy has been utterly changed by their dentist! Perhaps the contour of Washington's majestic face could not have been preserved after he was forced to trust himself in the hands of the dentist, but one cannot help thinking that if some of our skilful practitioners of to-day had had the shaping of that immortal *ratelier* which lies behind the lips to which the statuary and the painter tried in vain to give expression, the Father of his Country would have looked upon us with a still nobler aspect. And with what a sad surprise do we greet our friend who has just come from the hands of some tasteless workman in dental porcelain, who has filled his mouth with a set of "dominoes," as the pugilists call them, staring and glaring and cheating him of all his natural expression, so that to talk with him is like making a new acquaintance, and we feel as if we were taking a liberty in speaking without an introduction!

The Dental Profession is doing itself great honor by the breadth of the studies which it encourages as well as by the vast amount of ingenuity which it calls into exercise. The debt of mankind to its labors is incalculable. Many a man, still more many a woman, would rather not live at all than live disgraced by the wrongs of nature—if we may lay the fault to nature and not to artificial habits—shut out from all the charms of social intercourse by imperfect articulation and the sense of deformity, and it may be condemned to invalidism by failure of the first process of reduction of the food. There is nothing the dental art does not attempt,

and hardly anything within the bounds of reasonable belief it does not accomplish. It fills the teeth that would have been gone in a year, and makes them last a lifetime. It builds up a new fabric on what seemed the most worthless foundations, until like a monarch, the ancient fang wears a crown of solid gold, and the miracle of the legend is made an every-day fact. It straightens the most perverse irregularities, weeds the over-crowded arches, fills the gaps which disenchant the smile of beauty, enameling the delicate substitute to the exact shade of the lost pearl, lulls the patient into a pleasing trance while it clears away the incumbrances that no longer serve him, and makes him once more comely and happy with a third dentition of gold and porcelain.

It is a pleasure to pay a tribute of respect to such an art, and to call the attention of all who love medical literature to a Journal like the *Dental Cosmos*. O. W. H.

Feb. 4, 1868.

#### NOTES FROM THE UNION MEDICALE.

*Poisonous Dye-stuff in certain English Hosiery—Coralline, or Peonine.*—Our readers are familiar with the accounts of the poisonous effects alleged to have resulted from the use of certain English stockings having a peculiar red color. There have been various theories of the chemical composition of the dye producing the noxious results described. Prof. Tardieu has been investigating the matter.

In May, 1868, M. Tardieu, before he was cognizant of the facts which have since become so widely known, was consulted by a young man, 23 years old, of admirable constitution, and exempt from all herpetic taint, who was affected with a vesicular eruption on both feet. The eruption, which was quite acute and very painful, might, at first sight, have been taken for eczema. It was limited with precision to the part of the foot covered by the shoe, involving both the upper surface and the sole, and not extending backwards beyond the "roots" of the toes. The skin was violently inflamed, swollen, of a uniform redness, and studded with innumerable little vesicles, which at certain points, especially on the sole, united to form large bullæ filled with a sero-purulent liquid. There was general *malaise*, fever, headache, and sickness at the stomach. Emollients and repose were enjoined. In two days the general symptoms had disappeared. But the feet did not get well under about three weeks. In another case, stockings striped with the color in question were used; and the inflammation of the skin was, here, limited to the parts in contact with the red lines. An American lady in Paris was similarly affected from

wearing silk stockings of the mischievous red color.

A skilful chemist, M. L. Roussin, assisted M. Tardieu in his experiments. They took the socks worn by the young man first mentioned, and soaked them in cold water, boiling water, acidulated water, and water rendered alkaline; but obtained nothing soluble. Alcohol, however, boiling at 85 degrees (centigrade, probably), rapidly dissolved the red coloring matter. By evaporation to dryness, an extract was obtained. This extract, re-dissolved in a little alcohol, was injected under the skin of a dog, of a rabbit, and of a frog. The three animals died—the frog in four hours, the dog in thirty-six hours, the rabbit in two days. The dog and rabbit had excessively abundant and almost incessant stools.

The coloring matter, M. Tardieu says, being called *coralline* or *peonine*, is derived from *acide rosolique*, which is in turn obtained by oxidation from phenic (carbolic) acid. Having obtained specimens of it from M. Persoz fils, who discovered it in 1860, M. Tardieu made further experiments with it on animals, which showed it to be a violent poison. *Post-mortem* examination revealed violent inflammation, with purulent infiltration of the cellular tissue at point of injection; stomach healthy; intestines distended with an enormous quantity of liquid fecal matter, and presenting manifest traces of acute inflammation of the mucous membrane; liver affected with fatty degeneration, demonstrated by the microscope. M. Tardieu lays great stress on the fact that the lungs were beautifully and uniformly tinted with the coloring matter. This substance, having been extracted from the lungs and livers of the animals poisoned with it, dyed a skein of silk with its own tint.

M. Tardieu compares the action of coralline to that of croton oil, both in its local and general effects; and asks if the symptoms produced in the human subject by the former—fever, headache, vertigo, nausea—were simply provoked by the local inflammation, or if they were not rather the consequence and the indication of absorption of the poison. He also calls attention to the fact that the coralline is not soluble in water, and yet in producing the lesion of the foot, had no other solvent than the secretions of the skin. This became the point of departure for a discussion (which was, as it were, adjourned without being decided), at the Imperial Academy, as to whether certain substances not capable, while in watery solution, of absorption by the skin, can be absorbed by the cutaneous surface, when they are in the form of powder, or mingled with oily matter.

In the course of the discussion, it was stated that M. Roussin, after having remained for five (5) hours in a bath containing five hundred (500)

grammes of iodide of potassium in solution, was unable to detect the slightest trace of that substance in the urine or the saliva. But, after having left the bath, he allowed the moisture to evaporate from the surface of the body, so as to leave a layer of iodide of potassium on the skin; and, in a little while, the salt was detected both in the urine and in the saliva.

#### *Chronic Albuminuria of a Benign Character.*—

M. Dumontpallier has been the medical adviser, for some years, of a young man, of gouty habit, whose general condition, says Dr. D., is so satisfactory that he would never be suspected of having albuminuria, but in whom the urine contains albumen. On the basis of this case, M. D. claims that there is such a thing as a chronic albuminuria of long standing, which is not necessarily the expression of a grave deviation from health. The reporter adds that Rayer, who had given much attention to the disease, and also Trousseau, with his vast clinical experience, had both said to him, in their latter years, that much investigation was still requisite to complete the prognosis of albuminuria.

MASSACHUSETTS MEDICAL COLLEGE.—The following are the names of the gentlemen who received their degrees on the 10th inst., with their residences and theses annexed:—

#### *Members of the Class graduating in Medicine.*

Bassett, Elton James, Taunton, Scarlatina.  
 Baylies, Alfred Wood, Taunton, Rubcola.  
 Bent, William Henry, Dighy, N. S., Pyæmia.  
 Bradford, Enoch Freeman, Turner, Me., Diseases of the Heart.  
 Brown, Henry Nelson, N. Scituate, R. I., Diabetes.  
 Burden, Frederick Lysander, Scituate, R. I., Hæmorrhage.  
 Buttrick, Abner Wheeler, Lowell, Tania Solium.  
 Campbell, Duncan, Inverness, N. S., Erysipelas.  
 Carter, William Gardner, Concord, N. H., Typhoid Fever.  
 Chisholm, Donald, Inverness, N. S., Absorption.  
 Cleaves, Royal Lewis, Bridgeton, Me., Generation.  
 Clough, Benjamin Franklin, Boston, Intermittent Fever.  
 Collie, James Ross, Pictou, N. S., Catharisis.  
 Daley, James, Lawrence, Endocardial Murmurs.  
 Davis, Sumner Danforth, Scranton, Pa., Diphtheria.  
 Dodge, William Lovell, Springfield, Vt., Dysentery.  
 Doe, Orlando Witherspoon, Boston, Lead Poisoning.  
 Dorsey, Thomas Graham, Philadelphia, Pa., Prolapsus of the Uterus.  
 Dow, William Wellman, Dover, N. H., Hæmoptysis.  
 Draper, Frank Winthrop, Wayland, Ergot of Rye.  
 Emery, Erastus, Binghamton, N. Y., Hydrærgyrum.  
 Fellows, Willis Mott, Lowell, Articular Rheumatism.  
 Fogg, Edmund Eastman, Limerick, Me., Opium.  
 Fulton, Jonathan Borden, Boston, Inflammation.  
 Gage, William Hathorne, Exeter, N. H., Inflammation.  
 Galligan, Francis Edward, Taunton, Amenorrhæa.  
 Goldsmith, Charles Almon, Auburn, N. H., Spermatorrhæa.  
 Goss, Francis Webster, Salem, Digitalis Purpurea.  
 Hahn, Ammi Ruhamah, East Boston, Surgical Hæmorrhage.  
 Ham, Edward Bartlett, Dover, N. H., Mechanism of Natural Labor.  
 Hibbard, William Warner, Worcester, Mind in Disease.  
 Hills, William Henry, Westminster, N. S., Nervous Diathesis.  
 Hodgson, Abner, Cumberland, N. S., Pneumonia.  
 Howard, Edwin Clarence, Boston, Puerperal Fever.

Johnson, Horatio Huntington, *Belfast, Me.*, Hernia.  
 Kent, John Bryden, *Nova Scotia*, Diptheria.  
 Knight, Benjamin Jr., *Providence, R. I.*, Hysteria.  
 Logan, William Henry, *East Boston*, Alcohol.  
 Mansfield, Henry Tucker, *Boston*, Acute Rheumatism.  
 Mangeson, Charles Inglis, *Wilmington, N. S.*, Cerebro-Spinal Meningitis.  
 McCollom, John Hildreth, *Medford*, Hip Disease.  
 McKay, John Graham, *Charlottetown, P. E. I.*, Life and Death.  
 Newhall, Edward George, *Galena, Ill.*, Asiatic Cholera.  
 Nichols, Algernon Sidney, *Haverhill*, Syphilis.  
 Okie, Howard, *Providence, R. I.*, Tubercular Meningitis.  
 Parker, Francis Fullam, *Springfield, Vt.*, Vis Medicatrix Nature.  
 Pedoin, Ferdinand Lorek, *Fredericton, N. B.*, Pneumonia.  
 Peirce, Warren, *Mendon*, Diptheria.  
 Pillsbury, Geo. Harlin, *Lowell*, Hypodermic Injections.  
 Reynolds, Henry, *E. Wotton, Me.*, Uterine Displacement.  
 Rose, Daniel Campbell, *Eastport, Me.*, Diptheria.  
 Sunders, Daniel Oliver, *Nova Scotia*, Spermatorrhœa.  
 Simpson, James Lund, *Glassville, N. B.*, Diaphoresis.  
 Smith, John Peter, *Pictou, N. S.*, Placenta.  
 Stevens, Andrew Jackson, *Haverhill*, Ovariectomy.  
 Vail, William Edwin, *Sussex Vale, N. B.*, Digestion.  
 Wilson, Charles Alonzo, *Gardner*, Scrofula.  
 Wood, Edward Addison, *Groton*, Variola.

*Members of the Class Graduating in Dental Medicine.*  
 Freeman, Robert Tanner, *Washington, D. C.*, Importance of Preserving the Teeth.

Fillebrown, Thomas, *Leviston, Me.*, Non-assimilation of Food as a Cause of Impaired Dentition.  
 Haley, Thomas, *Biddeford, Me.*, Dental Caries.  
 Page, Edward, *Charlestown, Mass.*, Nitrous Oxide.  
 Shaw, Samuel J., *Marlboro', Mass.*, Extracting Teeth.  
 Vincent, Joseph J., *Amherst, Mass.*, Dental Manipulations.

**CHOREA.** By SAMUEL WILKS, M.D., Physician to, and Lecturer on the Practice of Medicine at, Guy's Hospital.— . . . . . A more usual opinion, however, is that the order of sequence is rheumatism, cardiac affection, and chorea; and thus a theory is held, which was first propagated by Dr. Kirkes, that embolic particles are carried from the heart to the spine, and there set up the irritation which is productive of chorea. This of course is a mere opinion, and not proved to be correct either in fact or in theory. . . . .

I should very much doubt whether chorea is due to any special disease of the spinal cord or other part of the nervous system, but rather, like epilepsy, due to a disturbance of the whole of the centres. That the brain is affected is shown by the occasional maniacal excitement and the more frequent tendency to imbecility. Just as in epilepsy you may find a sudden disruption or discharge of nervous force exciting the ganglia below, and temporarily suspending the action of the cerebral hemisphere in which the explosion took place, so in chorea the irritation is more continuous, and the movements consequently constant. Hence, when any extra work is put on the cineritious matter of the hemispheres, as when volition comes into play, the movements are increased. The common cause of fright would also seem to show that the first shock was mental, or imposed on the cerebrum. It is a condition in which the nervous centres have become irritable, lost their power, and the will is incapable of directing their action. A strong voluntary effort is capable for a moment of restraining the movements, but time is necessary for the power to be regained. In those cases where the complaint remains chronic,

and more especially in those instances where the choreal movement is confined to one part of the body, it ceases to be a disease in the ordinary acceptance of the term; the movement is simply a bad habit. Just as the spinal cord is educated to perform ordinary routine movements, such as take place in walking or in playing a tune, when the mind is otherwise engaged, so the spinal cord may be badly educated, or have become habituated to produce certain strange movements, which require a great effort of the will or training to entirely overcome. In such chronic cases medicine is of little use.

*Treatment.*— . . . . Morphia, as far as I have seen, is useless. I can call to mind two cases where large doses were given, but the effect was only transitory. The same with chloroform; the vapor produces but a temporary tranquillizing effect, and our experience of it is not encouraging either in chorea or in the allied disorders, tetanus and hydrophobia. I have never seen strychnia of any use in the acute affection; and the same of belladonna and conia. In the less severe cases it is possible that one or two of these medicines may be useful, but I feel convinced that the class of medicines of which I speak—those which have a physiological action on the nervous system—are far less efficacious than the metallic tonics. It would seem that in order to produce a cure a bracing up or restoration of the original nerve power is necessary, and that the mere subdual of symptoms in no way tends to cure the complaint. When I say this I speak with some little hesitation of the effects of belladonna and conium, both of which remedies I have seen apparently useful. I remember when at Paris some years ago hearing Trousseau give a lecture on this disease and warmly recommend belladonna. On another occasion he was declaring that there was no drug in the Pharmacopœia equal to strong coffee, and on a third occasion he was vaunting the new gymnasium at the Hospital for Sick Children as the best therapeutic agent he knew. I mention this to show that there really is no specific treatment for the disease. I might say that we thought we saw some benefit in one case after the use of cannabis indica, but none whatever in four cases in which we tried the physostigma.

I believe I can tell you something very positive about the treatment of chorea, and I only wish I was enabled to make the same boast in reference to some other diseases. Many years ago, seeing that every medicine in the Pharmacopœia as well as several others out of it, were said to be equal to the cure of chorea, I determined to watch the disease untrammelled by medicines, and I found that in many cases a speedy recovery took place without the administration of any medicine whatever. . . . I should say that a weakened condition of the nervous centres being at the root of the malady, good nourishment and the tonic plan are necessary. . . . I believe Dr. Elliotson many years ago acquired great fame by his success in the treatment of chorea, his remedy, as you know, being the red oxide of iron. We still give it, and it is one of the best of remedies; our children very willingly take half-drachm doses in treacle. Probably an equally favorite remedy here is the zinc—in fact, it is the medicine most commonly given, beginning with grain doses, and increasing to any

amount, as a scruple three times daily. A favorite remedy of my late colleague Dr. Hughes was rhubarb steeped in port wine; the children were thus well kept up at the same time that the stomach and bowels were improved in condition. . . .  
—*London Medical Times and Gazette.*

DR. BATEMAN's paper on Aphasia, read at the last meeting of the Medical Society of London, aimed another blow, if one were necessary, at Broca's defunct theory of localization of speech in the third left frontal convolution. Dr. Bateman gave a good *résumé* of opinions on the subject, and stated, in conclusion, that he doubted the existence of any centre of speech. He believed that aphasia might depend on want of co-ordinate action as well as upon appreciable lesions of the nervous system.—*Ibid.*

SUTURE OF THE TENDO-ACHILLIS.—M. Delore, of the Charité Hospital, Lyons, relates the case of a boy, 9 years of age, who was brought to that Hospital twelve days after his tendo-Achillis had been cleft by a small hatchet. A separation of four centimetres existed between the two parts of the tendon. These were cut down to, and after some adhesions had been separated, and the edges of the tendon pared, these were brought into contact by four points of metallic suture. The leg was so fixed that no traction was exerted on the sutures. In from ten to fourteen days all the sutures were removed without union having taken place. There was, however, no separation, and the limb was kept in the same position, the starch bandage not being removed until the fifty-second day. Six weeks were required to restore the complete mobility of the limb after being so long fixed, but at the end of that time the boy had recovered complete use of the extremity. No separation between the ends of the tendon now existed, some adhesion having, however, taken place between it and the skin covering it.—*Ibid.* from *Bull. de Thérap.*, September 15.

FORCED AND PROLONGED FLEXION OF THE LIMBS IN TRAUMATIC HÆMORRHAGE.—M. von Adelmann, of Dorpat, in a paper laid before the Belgian Academy of Medicine, and founded upon ten cases occurring in his practice, arrives at the following conclusions:—1. Forced flexion is a valuable means of arresting traumatic hæmorrhage. 2. It should be employed before having recourse to other hæmostatic agents. 3. It may be resorted to even in cases in which ligation of the artery has failed. 4. A knowledge of its mode of application should be properly diffused, so as to allow of its being at once adopted while awaiting the arrival of the Surgeon. 5. Such knowledge may also be very useful in armies. 6. It is very desirable that manuals of Surgery should bring the subject into prominent notice.—*Ibid.* from *Presse Belge.*

NEURALGIA OF THE INTERNAL SAPHENOUS NERVE.—M. Bousseau related two cases to the *Société Médicale d'Observation*, which he believes may be thus correctly denominated. He says: 1. This form of neuralgia manifests all the characters observed in the neuralgias of the principal nerves of the trunk and limbs. 2. It is sometimes directed

towards the termination of the nerve, and at others mounts up from these towards its main trunk. 3. It may exist alone or concurrently with neuralgia of other branches of the crural nerve, and with that of the sciatic nerve. 4. It is a very rare affection, and is promptly ameliorated by injections of sulphate of atropia.—*Ibid.* from *Gazette des Hôp.*

LABARRAQUE'S WINE OF QUINUM. By WM. PROCTER, JR.—A correspondent desires to be informed, through the columns of this Journal, of an easy method of preparing Labarraque's *Vin de Quinum*.

"Quinum" is a name given by M. Labarraque to the crude quinine or alcoholic extract of cinchona by lime. According to M. Dorvault (*Ollivier* p. 520, edit. 1858), it is prepared as follows: Take such a mixture of cinchona bark as shall contain about 2 per cent. of quinia and one of cinchonia, bruise it finely and add to it half its weight of hydrated lime in powder. Treat the mixture with boiling alcohol till exhausted, and distil off the alcohol from the resulting tincture by aid of a water or steam bath to dryness. The residue is *quinum*, which contains 33 per cent. of its weight in cinchona alkaloids. It is therefore very much richer in alkaloids than the best extracts of cinchona, and the preparations made from it are of course easily made more active, and as it is graduated in strength, more uniform.

*Wine of quinum* is prepared by dissolving 44 parts of quinum in 1000 parts of white wine, such as sherry and madeira; this is about equal to 35 grains to the pint. M. Dorvault says the dose is from three to six fluidounces in 24 hours as an antiperiodic in fevers, and from an ounce and a half to three ounces per day as a tonic.

We do not know the precise solubility of quinum, but may hazard the opinion that a stronger solution with a less dose would be preferable when the stimulating effects of the alcohol are not needed.—*American Journal of Pharmacy.*

THE COMMUNICABILITY OF PHTHISIS.—In a letter to the editor of the *Medical Times and Gazette*, R. P. Cotton, M.D., Senior Physician to the Hospital for Consumption, Brompton, says:—"My attention has but just now been directed to an abstract of a paper by Dr. Elliott upon the communicability of phthisis, in the last number of last year's *Medical Times and Gazette*. Dr. Elliott appears to be a firm believer in Dr. Budd's theory of the zymotic character of consumption, and supports his views by asserting 'the frequency of phthisis amongst the nurses of the Brompton Hospital.' As such a statement (given, I would observe, without any authority) is quite opposed to fact, and the question is of grave importance, I hope you will allow me, although somewhat late in doing so, to refer Dr. Elliott and those of your readers interested in the subject to a detailed report of mine on this very matter published in the *Lancet* of Nov. 2, 1867, as a reply to Dr. Budd's views. It will there be seen that the nurses and other resident and non-resident officials connected with the Hospital for Consumption at Brompton have been always remarkably free from phthisis, affording in this respect very evident and strong testimony in favor of the non-communicability of the disease."

## Medical Miscellany.

THE "Dearborn Branch" of the Boston Dispensary, thus named in honor of the late Benjamin Dearborn, the greatest benefactor of the institution, will be opened for the treatment of the sick poor on Monday next, the 15th inst.

The three rooms awarded by the City to the Dispensary are situated in the basement story of the new Charity Bureau on Chardon Street. The central room is to be devoted to the reception of patients, and the others respectively to the treatment of medical and surgical cases. The hours of service are the same as at the central office, viz., from 9 to 11, A.M., except on Sundays and legal holidays. This branch is intended for the benefit of the poor in the north and northwestern parts of the city. Provision has been made by which prescriptions can be purchased of a neighboring druggist at a very low cost by those who can afford it; others can be served as heretofore at the central office.

We trust the day is not far distant when the funds of the Dispensary will allow the establishment of similar branches in East and South Boston, as well as in the Highland District.

At a meeting of the Executive Committee of the Dispensary, the following gentlemen were elected to compose the staff at the new branch of the Dispensary:—As Physicians, F. E. Oliver, M.D., T. W. Fisher, M.D., Robert Amory, M.D., Thomas Waterman, M.D. As Surgeons, A. Coolidge, M.D., G. G. Tarbell, M.D., A. H. Nichols, M.D., H. H. A. Beach, M.D.

WE regret to see that the Legislature of the State of Maine has indefinitely postponed the bill for the legalization of anatomy. It is obvious, we think, that either there can be no proper study of medicine in that State, or else anatomy will be studied with the aid of dissections, *legal or illegal*.

WE tender our thanks to Messrs. Codman & Shurtleff for one of their "atomizing apparatus, No. 5." The instrument is worked by the hand, and is all that could be desired. Messrs. C. & S. furnish tubes which can be adapted to the air-driving part of the apparatus, for the purpose of producing local anæsthesia.

The same manufacturers have also sent us one of their improved steam atomizers. We have seen one of these in use by a patient, and it operates to the entire satisfaction of all parties concerned.

GRISOLLE died on the 10th of February last, in the 58th year of his age. He had been withdrawn from the world of science for three years previously, by a stroke of apoplexy. At the funeral, which recently took place in Paris, the pall-bearers were the Dean of the Faculty of Medicine; M. Blache, President of the Academy of Medicine; M. Husson, Director of *l'Assistance Publique*; and a member of the *Société Médicale des Hôpitaux*. Addresses were pronounced at the tomb by M. Belier, M. Chauffard, and M. Millard.

At the annual meeting of the Boston Academy of Homœopathic Medicine, January, 1869, Dr. Gregg said:—

"The discussion naturally leads to the consideration of the prophylactic properties of *belladonna* in scarlatina. In many instances he had administered this remedy with a view to prophylaxis. In some cases the disease did not occur in those to whom it was given, but in the majority of cases it was otherwise, the disease spreading to other members of the family with the same facility as if they had not taken the *belladonna*.

"He had seen an equal number of isolated cases of the disease in families where the *belladonna* had not been given as in those where it had. He therefore regarded the prophylactic powers of *belladonna* in scarlatina as wholly theoretical and unreliable."

DR. POULET, of Plancher-les-Mines (Haute-Saône), France, has sent in a paper to the Academy of Sciences, to show that alcohol, taken in large doses, is a sure specific in cases of poisoning by mushrooms, especially by those of the amanita genus.

LARYNGOSCOPY was discovered in 1854, by Garcia, a London music teacher. Czermak, of Prague, first made the art available.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

THURSDAY, 10 A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

ERRATA.—The line in the second parenthesis on page 94 should read simply (Gubler), without the remaining words.—In the article on "Cerebral Amaurosis," in last week's JOURNAL, for "optic tracks" read *optic tracts*.

TO CORRESPONDENTS.—The following communication has been received:—Neurasthenia, or Nervous Exhaustion. The paper on Disease of the Supra-renal Capsules will appear early in April.

DEATHS IN BOSTON for the week ending Saturday noon, March 6th, 119. Males, 59—Females, 60.—Accident, 1—apoplexy, 2— inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 3— inflammation of the brain, 3—bronchitis, 3—cancer, 1—consumption, 15—convulsions, 1—croup, 4—cystitis, 2—dropsy, 1—dropsy of the brain, 5—dysentery, 1—erysipelas, 3—scarlet fever, 14—typhoid fever, 3—hemorrhage, 1—disease of the heart, 6—hernia, 1—infantile disease, 4—intemperance, 1—jaundice, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 3— inflammation of the lungs, 8—marasmus, 1—old age, 4—paralysis, 1—enlargement of the prostate, 1—puerperal disease, 6—unknown, 11—organic disease of the uterus, 1—whooping-cough, 2.

Under 5 years of age, 44—between 5 and 20 years, 8—between 20 and 40 years, 29—between 40 and 60 years, 15—above 60 years, 23. Born in the United States, 80—Ireland, 25—other places, 14.





Fig. 1.



View of the tamping iron, and front view of the cranium, showing their comparative size.

Iron 3 ft. 7 in. long;  $1\frac{1}{4}$  in. in greatest diameter; weight  $13\frac{1}{2}$  pounds.

Fig. 2.



Front and lateral view of the cranium, representing the direction in which the iron traversed its cavity; the present appearance of the line of fracture, and also the large anterior fragment of the frontal bone, which was entirely detached, replaced, and partially re-united.

Fig. 3.



View of the base of the skull from within; the orifice caused by the passage of the iron having been partially closed by the deposit of bone.

*Vide* "Bibliographical Notice" in Boston Med. and Surg. Journal, No. 7, vol. iii. New Series, March 18, 1869.

THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MARCH 18, 1869.

[VOL. III.—No. 7.]

Original Communications.

TREATMENT OF DISEASES OF THE LACHRYMAL SAC.

From an Article by Professor ARLT.\*

[Translated for the Journal by HASKET DERRY, M.D.]

[This important subject seems in our community to be very generally misapprehended. The ophthalmic surgeon receives constant applications, from sufferers with such affections, for the insertion of the style or the passage of the probe from below into the nasal duct. And occasionally practitioners are found to be unaware that these methods are now happily obsolete. In the face of this it has seemed to the translator that the following selections from the able article just published by Professor Arlt, the occupant of the chair of Ophthalmology at Vienna, and one of the most eminent authorities of the day, might profitably be transferred to the columns of the JOURNAL.]

The anatomy of the parts is first elaborately discussed and illustrated by various drawings from nature, sections of frozen heads being employed. From this the proper rules for the passage of the probe are deduced. It is shown that though, after the method of Bowman, the canaliculus be thoroughly divided, it can never be kept open through more than half its length, a fact that has an important practical bearing. Denuded bone and entire occlusion of the sac are declared to be of comparatively infrequent occurrence. And a guarded prognosis is advised in cases where there is much dilatation of the anterior wall of the sac; the flow of tears often continuing after the largest probes have passed, owing to the inability of the stretched fibres of the orbicularis to produce the compression necessary to expel the contents of the sac.]

I have for nearly ten years practised the dilatation of the natural passage exclusively on the plan of Bowman, with but slight

modifications; the idea, however, on which I have proceeded, or rather to which the course of my observations has conducted me, is different from that which appears to have floated through the mind of the great reformer in the treatment of diseases of the lachrymal duct. I am of opinion that *so great a dilatation as is sought to be effected by the use of probes No. 5 and No. 6 of the Bowman series, is neither necessary to the restoration of the normal functions, nor devoid of danger.*

It is unnecessary; for during the last three or four years I have seldom used No. 5 and never No. 6, and have still effected many lasting cures. All this time, too, I have hardly had a case of obliteration of the canaliculus or nasal duct, following the probe treatment. It is the larger probes, in my opinion, which are apt to cause laceration and consequent closure of either of these places, even when properly introduced.

Let us consider what takes place *when the probe is passed through the lower canaliculus.* About 3" of it cannot be slit up, at any rate cannot be converted into a permanent open channel. The aperture of this portion is smaller than the diameter of No. 5. Granted that by the gradual passage from small to large probes we may even get in No. 6 without danger of disturbing the epithelial layer, we are by no means sure of not rupturing or lacerating the canaliculus. The line of direction of the lower canaliculus is set at an acute angle to the line of direction of the lachrymal duct. When the probe is raised, the end of the unslit portion must be dislocated and stretched in proportion to its length and the tenacity with which it encloses the probe which has been introduced. Neither the outer nor the inner end of the unslit portion admits of more than a moderate change of position, the inner end especially being a part where rupture cannot always be avoided, no matter how slowly the probe is raised. It is this rupture which I believe lies at the bottom of the subsequent closure. Take a case where No. 6 has been easily introduced, and where the intervals

[Whole No. 2142.]

\* Archiv für Ophthalmologie. Bd. 14. Abth. 3. S. 267.  
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between the treatment are gradually allowed to grow longer, suddenly it will be discovered that no probe, or at most only a very small one, can be introduced. In this connection I should say that, in some cases where even No. 1 could not be passed, I have succeeded in introducing the conical probe, carefully observing the proper line of direction, and have then gradually been enabled to resume the use of the larger probes. I cannot, however, state whether entire occlusion did not in time ensue, it happening unfortunately that the patients absented themselves as soon as they ceased to be annoyed by lachrymation. If I could not succeed in this way, I slit up the upper canaliculus and probed through this.

I am not sure, but am fearful that the large probes may cause mischief in the nasal portion of the canal, the capacity of which is known—in the majority of cases—to be hardly above No. 4. When, after the removal of the probe, the patient has bled at the nose, I consider that there is a tendency to cicatricial contraction or obliteration, and I omit probing for several days. If the bleeding takes place at the first visit, I can only account for it by supposing the probe to have been improperly introduced or removed. And I may here say that I accomplish the latter manœuvre after fixing the head, and nearly as slowly as the former. If at a subsequent visit, and after the use of a larger probe, I get bleeding, I am apt to suspect that the size of the probe has given rise to a loss of epithelium or to rupture. If I have begun to use a larger probe, and get on withdrawal a feeling as though it were held fast by the passage, I interrupt the treatment for several days, and take next time a smaller probe. I sometimes use Nos. 3 and 4 and a rather slight No. 5, slightly bent and made of hardened caoutchouc, and these effect a passage in many cases where silver ones of the same size could not be introduced without danger of injury.

*Probing through the upper canaliculus* I have only employed in cases where the lower had grown up, after treatment by me or by others. Both the slitting up and the proper introduction of the probe into the sac present here, I think, extra difficulty, particularly when the brows are unusually prominent. In such cases it is not always easy to put the canaliculus on the stretch in the proper direction, that it may be correctly slit up; still less to keep it stretched and pass the end of the sound downwards and inwards along its anterior lower wall. But raising the probe is not only

easier but less dangerous, inasmuch as the unslit portion of the canaliculus lies at a very obtuse angle to the line of direction of the lachrymal sac. Here, too, should the relative size of the probe be too large, we incur the danger of disturbing the continuity of the epithelial layer and rupturing the canaliculus. If we turn the probe without being certain that its end has reached the extremity of the canaliculus, we may pierce its walls and thus endanger the integrity of the lower canaliculus. The difference between this method and that of Anel consists in the slitting up of (the outer half of) the canaliculus; it allows the introduction of larger probes with much less violence, and consequently much less danger of catching the probe in the inner wall of the sac. The larger probes are more readily guided, more easily handled, and run less risk of penetrating the tissues than the fine ones which Anel was obliged to employ.

I have never practised the *method of Weber*.<sup>\*</sup> When he published it I was trying that of Bowman, and in the course of this trial I became gradually convinced that the thing to be gained is not so much the smoothing out of the sides as the restoration and maintenance of a canal large enough to interpose no invincible obstacle to the fluid sent down by the action of the orbicularis. Is it to be supposed that Anel never wrought a cure with his thin probes? A reliable old practitioner, Dr. Schmalz of Pirna, assured me that he got his best results by the simple insertion of a thread (the method of Ad. Schmidt). Too much stress is not to be laid on the analogy with the urethra; for there we so often have an opportunity, by subsequent autopsy, of testing and confirming the correctness of our theories as to the position and consistency of the stricture, as to accumulate a certain amount of sound theoretical knowledge, bearing upon subsequent soundings and their significance. But in the case before us we rarely have a chance of gaining anything by dissection, while a knowledge of the relation of such results to our previous observations of the case, and to the action of caustics and probes, will

<sup>\*</sup> A. f. O. Ed. viii. Alth. I. S. 94. [Instead of Bowman's probes, Weber proposed the employment of elastic urethral bougies of small size, stiffened with a central wire. In tight callous strictures to which this treatment was inapplicable, he employed conical metallic probes, the thin portion of which was constructed of hard, the thick of soft silver, and thus prepared the way for the introduction of the bougies. He moreover slit up the canaliculus as far as its entrance into the lachrymal sac, and the entrance to the sac itself, dividing the ligamentum incisale subcutaneously. He made his approach through the upper canaliculus.—H. D.]

long be a consummation devoutly to be wished for. The urethra is surrounded by soft, more or less elastic tissues; the nasal duct by bone. What becomes of the circulation in the mucous membrane imprisoned between the bone and the probe or bougie? What state of things supervenes directly on such imprisonment? May it not happen, during the passage or withdrawal of probes that enlarge after introduction, that the union between the mucous membrane and the bone gives way more readily than the adhesion between the probe (bougie) and the mucous membrane? The diseases of the urethra generally result from local irritation; the mucous lining of the lachrymal sac is hardly accessible to aught else than the tears. It is a well-known fact that even in conjunctival blennorrhœa (acute, chronic, of the new-born, or of adults) it is seldom we see an invasion of the mucous membrane of the lachrymal sac. Nearly all diseases of the lachrymal sac are to be traced to a chronic catarrhal inflammation of its mucous lining, and this in the majority of cases is doubtless connected with extended disease of the mucous membrane of the nose or throat, with scrofula, an injudicious course of life, and unfavorable external circumstances. In relapses of chronic catarrhal inflammation, are we to consider insufficient local treatment the invariable, or at least immediate cause? May not new inflammation and new stricture arise in a lachrymal sac that has undergone general dilatation? I regard probes (and bougies) as a single and not the only remedy in chronic catarrhal affections of the mucous lining of the lachrymal sac. I have made but slight trial of the injection of medicinal agents, such as moderately strong solutions of sulphate of zinc or nitrate of silver; intend, however, in future to apply them more frequently with the probe-syringe recommended by Wecker (*Maladies des Yeux*, Paris, 1868, T. i., p. 890). I expect but little from them.

From the preceding the reader will readily conclude that I have been unable to give in my adhesion to *incising the strictured portion*, and subsequently dilating. The instrument designed to accomplish this can hardly be introduced and manipulated without simultaneously injuring parts which it was not intended to touch. In reply to authors who claim to have thus succeeded, I can only state that I have every reason to be satisfied with the treatment proposed by Bowman—with the exclusion of the larger probes. The results, however, which have induced Warlemont (*Ann. d' Ocul.*, T. ix.)

to eulogize the method of Stilling\* (Casel, 1868) should lead to its farther trial.

In *fistulæ of the lachrymal sac*, I never introduce the probe through them, but through the slit-up canaliculus. It is well known that fistulæ which have been used a long time for the introduction of probes, pieces of catgut, &c., are the more difficult to close. The earlier such an opening is closed, the pleasanter and the better it is for the patient.

My recent experience enables me to again recommend in the most emphatic manner, in cases of *inflammation of the lachrymal sac*, a closely fitting pressure bandage, either alone or after slitting up the canaliculus, should that still be possible. It is true success is not constant, that is where the inflammation is advanced, but in such cases it does no harm, and saves the other patients much pain and the inconvenience of the spontaneous or artificial opening of the anterior wall. During the past year I have exhibited three cases of brilliant success among out-patients at the clinique, and had, too, only one failure.

In closing these remarks, I will take occasion to once more allude to the advantages which the plan of Bowman, employed as I have indicated, possesses over other methods. With proper patience and perseverance it surely attains its ends, provided the carrying off of the tears is impeded by no other obstacle, such as swelling of the mucous membrane of the lachrymal sac, with or without stricture; and we shall hardly ever harm the patient by inducing obliteration of the canaliculus or of the nasal duct. We promise him that he will have but little pain, and keep our word. But we need to secure ourselves from unexpected movements of the head, and make the patient sit with his head supported from behind. And, with hardly an exception, patients consent to this plan of treatment, as soon as circumstances admit of their visiting the surgeon daily for a few weeks. Hardly enough stress can be laid on this, when we consider that it is in our power to conduct a rational and safe course of treatment, at a time when the cicatrization of the mucous membrane has but slightly advanced. Even when a fistula has already formed, we can predict its clo-

[\* Stilling incises the strictured portion by passing a knife of suitable form through it, and on withdrawal cuts in three or four directions, so as to make the division more complete. No after-treatment is used. He says:—"As soon as the bleeding ceases, the eye, which a few minutes before swam in tears, becomes bright and clear; to the great joy and astonishment of the patients, who often at once state their vision to be considerably improved."—H. D.]

sure, and with it the removal of the facial deformity, in the simplest manner and in a short time. But the greatest advantage lies in the fact that, in case of a relapse, which may occur after every method, not excepting the obliteration of the lachrymal sac (a thing not always quickly accomplished), we have the way open for the introduction of the probe, and that patients living at a distance can be taught, or have their friends taught, how to introduce the probe, thus enabling us to prosecute the cure at our convenience.

#### MEDICINAL PLANTS INDIGENOUS AT PARÁ, USEFUL IN DYSENTERY AND DIARRHŒA.

By J. F. DA SILVA LIMA, M.D.\*

I WAS quite flattered recently by receiving from an eminent physician of Pará, Dr. Francisco da Silva Castro, a valuable donation of three remedial agents of that Province, which have proved efficacious, in the practice of that learned colleague and diligent observer, against the bloody-flux that prevailed in the city of Belem (Pará) the past year.

Learning that an epidemic dysentery prevailed in Bahia, Dr. Silva Castro with laudable generosity hastened to furnish us with these remedies, in order to give to our many sick the advantages derived from his own experience, and to afford us an opportunity of submitting to clinical tests the virtues of these agents in the treatment of this formidable disease. The occasion, however, had passed, by the subsidence of the epidemic, when Dr. Silva Castro's offering came to hand. I hope, nevertheless, to avail myself of it in sporadic cases of this disease, not infrequent amongst us, and in due time to publish the results of the trial, should they appear likely to become useful to the profession.

But as no opportunity has yet arisen, I deem it not improper to state what these agents are, with the information received from our distinguished colleague of their effects, and his modes of administration.

I. *Marupá* or *Marupá-miri*.—On this plant Dr. Silva Castro has favored me with the following extract from his unpublished work:

"Common name—*Marupá* or *marupá-miri* (Pará, Amazons).

"Scientific name—*Simaruba amara* Pa-raensis—belongs to the family of Rutaceæ. A small shrub.

"Part employed—Bark of the root.

"Action, or virtues—Tonic; and, in larger doses, emetic.

"Dose and formula—Internally; one or two drachms in decoction with a pound or more of water.

"Remarks.—Very useful in diarrhœa and dysentery; and to be recommended."

According to our colleague, the *marupá* is not only efficacious but quite infallible in the treatment of diarrhœa and dysentery; and was the therapeutic agent relied on when these diseases raged in Pará in the beginning of the year 1868, as may be seen by the following extract from his Report as Inspector of Public Health to the President of the Province. "It should be stated that the remedy most constantly used to combat this disease (dysentery), and which gave the best results, was the bark of the root of the *marupá-miri* (*simaruba amara*), one drachm to a pound of decoction, of which an ounce every two hours was given until the disease yielded—a result generally obtained in four or five days from the first administration. A diet of warm simples from chicken, fresh meat, or rice alone, materially aided recovery.

II. *Pajurá*.—Concerning this Dr. Silva Castro writes:—The *Pajurá* is the nut or seed of that name. It is derived from a large tree, which grows in low or wet lands on the borders of rivers, lakes, &c.; but I have never seen it, and therefore do not know to what family it belongs. The fruit is large and has a delicious flavor. The nut is given in powder, in scruple doses, three or four times a day in any vehicle, and is decidedly efficacious. The Indians and the people of the interior use it with great benefit. I tried it in two refractory cases, and obtained good results."

III. *Pereiorá*, or *precious bark*.—In relation to this plant Dr. Silva Castro sent me a copy of the following passages from Martius (*Systema Materiæ Medicæ Vegetabilis Brazilianensis*);—"Laurineæ. *Pereiorá*," or *precious bark*, Rio-Negro (*Mespilodaphne pretiosa*). The bark of this equally great forest tree, celebrated by the name of *canelilla* among the inhabitants of Orinoco, aromatic in flavor, warming and sweetish, corresponds to true canella. Its odor is that of sassafras, a mixture of canella and roses. It contains, principally in the inner bark, a yellowish ethereal oil, heavier than water, and comparable to the oil of canella. Medicinal value is accorded to it principally with the bark of sassafras; and its use has been skilfully adjusted in decoctions, infusions, and baths, for many diseases, as, for

\* Gazeta Medica da Bahia, Jan. 15, 1869.

instance, nervous debility, œdema of the feet, chronic catarrh, dropsy, gout, &c.

Although Dr. Silva Castro has not full confidence in all the vaunted virtues of *Pereiorá*, he nevertheless affirms that a tea-like infusion of the scraped bark, in the proportion of one ounce to a pound of water, is useful in diarrhoea and dysentery; and that the Indians of Rio-Negro give preference to the fruit, dried and given in powder. Our colleague made some trials of the infusion with beneficial results.

Having shown to my friend, Dr. Bomfim, Professor of Botany in our Medical Faculty, the three specimens sent from Pará by Dr. Silva Castro, and his letter, the Professor had the goodness to send me the following note which, for the elucidation of this point in our National *Materia Medica*, I now transcribe:

*"Marupá-miri.*—This is the *Simaruba Paraensis*, mentioned in eighth edition of the Formulary of Dr. Chernoviz, and in the *Materia Medica* of Dr. Beirao, as possessing the same medicinal properties as *Simaruba Officinalis*.

"Both plants belong to the family of *Simarubaceæ*, established in 1808 by Richard Pae, reduced by Adr. de Jussieu in 1825 to a simple species of *Rutaceæ*, and lately elevated to the rank of a botanic family by Lindley and the principal botanists of the day.

"The *Simaruba Officinalis* was introduced into Europe in 1813, having been accounted for by the inhabitants of Cayenne and Guyana as a *specific* in dysenteric affections. Its valuable powers, against such diseases, were confirmed by the celebrated botanist Antonio de Jussieu during the epidemic which prevailed in Paris in 1809. Since that time it has been proclaimed, and received, as an anti-dysenteric of the first class.

"To its more active tonic properties are due these remarkable results, as well as those obtained in cases of debility of the system. It is fit, however, to state that its use ought to be advised in dysentery, only after satisfying certain general rules—after, for instance, subduing the gravel when it exists; else the perils of the disease may be augmented by exciting intense local inflammations.

"'Useful in advanced stages of dysentery and diarrhoea,' say Drs. Royle and Headland in their *Materia Medica*, fourth edition, 1865, page 356.

"As to the therapeutic uses of *Pereiorá*, the specimen sent by Dr. Silva Castro, and the clause in his letter commencing 'the

tea-like infusion of the bark,' &c., appear to me to give a sufficient idea of the plant and its properties against dysentery. An examination of the leaves proves it to belong to the variety *longifolia* or *angustifolia*.

"The fruit of the *Pajurá* shows it to be of the family of *Lauraceæ* or *Laurineæ*. It is dry, but drupelike, and within the nucleus is enclosed an embryo destitute of endosperm, similar to the embryo of the *Persea gratissima* (abacate). This embryo, reduced to powder, is that experimented on by Dr. Silva Castro, as well as that referred to in his letter.

"The *Pajurá* and the *Pereiorá* owe their good effects in dysentery and diarrhoea to an aromatic principle, that is, to an essential oil which generally exists in plants of this family."

I give publicity to the preceding statements concerning these three important remedies indigenous on the shores of the Amazons, not only in consideration of the eminent colleague who honored me with this valuable consignment, and to whom science already owes numerous interesting contributions to our National *Materia Medica*, but equally to enable other practitioners, hitherto unacquainted with these agents, to make a trial of them in dysentery and diarrhoea, and thus, by adding the results of their experience to those obtained by Dr. Silva Castro, to establish definitely the therapeutic value of these remedies in such diseases, and thence to spread abroad their adoption from a limited locality where their usefulness has rendered them a necessity.

B. E. C.

## Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON. SECRETARY,  
HOWARD F. DAMON, M.D.

DECEMBER 5th, 1868.—The society met at the house of the President, Dr. Putnam, at 8, P.M.; the President in the chair.

CASE I.—*Puerperal Convulsions.*—Dr. Abbot reported the case.

The patient was a young, healthy, robust lady, pregnant for the second time, having aborted at an early period in her first pregnancy. She had been remarkably well during her second pregnancy, with the exception of being badly poisoned with ivy, two or three weeks previous to confinement. She awoke early in the morning and complained of intense headache, labor not having commenced, and had several convul-

sions. Labor came on during the forenoon and lasted three or four hours. The patient was seen by Dr. Abbot in consultation two or three hours after confinement, which was premature, at the seventh month. She had three or four convulsions during his stay of three hours, but was conscious enough in the interval to recognize her husband. The patient was bled to the extent of a pint with marked relief, as she was observed previous to a convulsion to put her hand to her head as if in pain. Subsequently, slept for a time, but the convulsions returned and were kept in check by the constant administration of ether through the night. No urine could be obtained for examination. The patient made a good recovery.

CASE II.—*Puerperal Convulsions*.—*Albuminuria*. Dr. Abbot reported the case. Parturition took place in this case, Nov. 30th,

TABLE.					
Time.	Reaction.	Sp. Gr.	Albumen.	Pus.	Casts.
Dec. 6th. Unknown.	Acid.	1011	Large Quantity.	Present.	None.
" 7th. Evening.	"	1019	Diminishing.	"	A few hyaline.
" 8th. A.M.	"	1016	"	"	None.
" 9th.	"	1021	"	"	"
" 10th.	"	1016	"	"	"
" 12th.	"	1011	Scanty.	"	None. Some blood.
" 14th.	"	1016	Nearly as much as at out set.	Increased.	None.
" 17th.	"	1026	Very much less than at any time previous.	Very little.	Very heavy deposit of amorphous urates.
" 18th.	"	1017	No albumen.	None.	No casts. No blood.
Albumen steadily decreased from 6th to 14th, then suddenly increased. Pus " " " " " "					

between 12 and 1 in the morning. The patient had been unusually excited, tossing about the bed with great violence during the labor; and ether was given freely. There were no convulsions before the birth of the child, and the ether did not check the expulsive action of the uterus. The next morning there was intense headache, and a

convulsion at 10, A.M. The pain was in the left temple. Thirty grains of the bromide of potassium were given; and the patient came quickly under its influence, and slept six hours. She was said to have had oedema of the ankles, which commenced in July; the urine was found to contain a large quantity of albumen—about a third of the bulk of the liquid. Specific gravity 1016; it contained urates, and a considerable amount of triple phosphates, pus, and casts. The convulsion was not repeated. Milk has been secreted freely; and the oedema has disappeared. Dr. Abbot believed that if ether had not been administered, convulsions would have occurred during labor. The preceding table of examinations of the urine, made by Mr. E. N. Whittier, Medical House-pupil at the Massachusetts General Hospital, is interesting, as showing how rapidly the albuminuria may disappear in such cases.

Dr. Reynolds asked if such a patient is not liable to have more grave renal symptoms in subsequent labors.

Dr. Putman remarked that puerperal convulsions did not always depend on albuminuria; but were sometimes of an hysterical, epileptic, or apoplectic character.

CASE III.—*Albuminuria, Puerperal Mania*, &c.

Dr. Reynolds thinks it desirable to learn the character of the urine whenever a pregnant woman appears debilitated or anæmic, or when her nervous system is in an unusually excitable condition—especially if the patient gets but little sleep. He has repeatedly used in the case of such women, with most satisfactory results, the preparatory treatment upon which Mr. Clay of Manchester and Dr. Horatio Storer of this city have so much insisted before surgical operations within the abdominal cavity, the administration of full doses of muriate of iron for a month or more in advance, to which Dr. Reynolds commonly adds every evening, five grains of the extract of ox-gall, both as a mild laxative and a nervous calmant.

Dr. Lyman thought the ox-gall a most effective and admirable remedy, in from five to ten grain doses. He said it produces very soluble discharges, not unlike those obtained from the administration of sulphur.

Dr. Buckingham stated that he also used the ox-gall some years ago. He had seen many patients with convulsions. They were generally during their first labors, and many times they were hysterical convulsions.

CASE IV.—*Albuminuria during Pregnancy, Convulsion during Labor*. Dr. Buckingham



gave the following history of a patient whom he had attended several times in labor. At her previous labors, there was severe hæmorrhage after the birth of the child. On the present occasion she had passed over her expected time. Her feet and legs were œdematous, and her face was swollen; but she was in no pain, although she had hard work to get about. It was feared that she might have convulsions.

Large quantities of albumen and granular casts were found in her urine, two weeks previous to her labor. Her urine was very scanty, not more than an ounce being passed during twenty-four hours, on several days. The bowels were thoroughly cleared out, and gallic acid prescribed. She had intense headache subsequently, and supposed from the gallic acid. Dr. B. was called to the patient between one and two o'clock in the afternoon, and remained until after delivery. She then had pain in the abdomen, but the os uteri was rigid. At 5, P.M., she asked for ether, on account of headache. After it was given, she had pain in the loins, but fell asleep for five or ten minutes, when suddenly she started up and cried "Doctor!" and went into a state of perfect opisthotonos. There was severe convulsion. Since the labor one of her eyes is so affected that she could see but half an object. The magneto-electric battery was used, on this occasion, to cause uterine contractions; one pole being placed on the fundus, and the other over the umbilicus.

**CASE V.—Albuminuria; Convulsions after Delivery; Death.**—Dr. Cotting gave the history of a woman who had been the mother of a number of children, but was now again confined after eight years' interval; and whom he had seen in consultation. She was reported to him to have been confined at 2, A.M., after a perfectly natural labor. Her physician left her at 4, A.M.; suddenly and without premonition of any kind, she was seized with convulsions at 5, A.M. On examining the urine, it was found to contain large quantities of albumen and also casts. The convulsions continued almost without interruption, even when the patient was fully etherized. Ether had little or no effect upon their severity. She died early the next morning.

The subject of the administration of ether in labor was then discussed.

Dr. Abbot said he was opposed to the early use of ether, as it seemed to him in that stage to retard labor, as it sometimes did, in fact, in the advanced stages. He seldom gave it unless the patient asked for

it, and then not usually before the second stage, and in moderate quantity.

Dr. Parks asked the President if he was in favor of giving ether in natural labor.

Dr. Putnam said the objection most commonly made is that the labor is retarded. This is true—sometimes most remarkably—but on the other hand the labor is often indirectly facilitated and accelerated by its influence in quieting nervous irritation and promoting the secretions and dilatation of the soft parts.

A more serious objection, if well founded, is the alleged liability to be followed by hæmorrhage. In his experience this had not been confirmed.

In reply to a question Dr. Putnam stated that he had sometimes employed ether in the very first stages of labor advantageously and agreeably.

Dr. Reynolds is of the opinion that in not a few instances the removal of the acute suffering enables the patient to give increased aids by her own exertions, while there are now and then women of fine muscular development, with whom the moderate use of anæsthetics relieves the distress without lessening the expulsive efforts.

Dr. Buckingham thought that, in hysterical cases, ether interfered with the progress of labor. Dr. Lyman gave a very graphic account of a case, in which two quarts of ether were given to a hysterical young woman during labor, without quieting her turbulence.

Dr. Cotting reported a recent case in which turbulence increased, but labor ceased during three hours of administering the ether. Discontinuing the ether, labor went on; and the patient declared that the labor itself was more tolerable than the effects of the ether. This was not a solitary case of the kind in his experience. Ether was followed by other inconveniences besides hæmorrhage; retention of the urine was one. Still, he not unfrequently allowed ether in labor, though the advantages were less than originally anticipated.

Dr. Reynolds said that in certain cases of undilated os he believed the full administration of ether for a short time a most excellent plan. When not given expressly for this end, he prefers to use very moderate doses. There is a class of hysterical patients whom it is very difficult to tranquilize with ether.

Dr. Read thought that there were two classes of women who are met with in labor. One selfish, unwilling to suffer the pangs of child-birth, and with no thoughts of their

expected offspring, seeking only to be made unconscious of suffering at any risk. The other true mothers, who, while probably as ready to be relieved of pain, and desirous of obtaining as much relief as possible, still desire that relief in the safest and best way for both themselves and the child yet unborn. The first claim ether from the outset and clamor for it, the latter accept it as a boon, when it is the most proper time for its administration. He thought that when ether was administered from the outset, it had the effect to weaken the expulsive power of the pains, so that at last they do not force the child down at all, and resort must be had to instruments in cases when otherwise the labor must have been natural. He thought it was best to delay the administration of ether till so late a period in the labor that this effect could not happen. As, for instance, till the time when the head rests on the perineum.

Dr. Minot thought that most women wanted ether; he always gave it when asked so to do. He did not think it retarded labor.

Dr. Putnam then asked the opinion of the society in regard to the production of uterine hæmorrhage, in consequence of the use of ether.

Dr. Minot did not think hæmorrhage more frequent with ether. He said that the only patient lost by him, from uterine hæmorrhage, took no ether.

Dr. Lyman said that his faith had been shaken, during the past year, in regard to the use of ether in labor. He never lets his patients lose consciousness, and delays its use as long as the patient can be pacified without it. Dr. Abbot said that he had not seen any alarming hæmorrhage after the use of ether; but, nevertheless, he usually gave, where he had administered it, a dose of fluid extract of ergot, after the labor was completed.

Dr. Putnam then asked Dr. Sinclair to state his experience in regard to the production of uterine hæmorrhage, in cases where he had given ether.

Dr. Sinclair said that he always dreads the giving of ether, on account of the greater liability, in his experience, to hæmorrhage after its use.

Dr. Buckingham said that, on this point, he agreed perfectly with Dr. Sinclair; and had often been obliged to wait two or three hours with his patient for pains to return, which had been stopped by ether.

Dr. Parks asked Dr. Buckingham if he still retained his views in regard to the use of opium in labor.

Dr. Buckingham said that he did, and spoke of its use as advised by Dr. Murphy in the treatment of hæmorrhage. He gave a full dose at the outset, if he wished to stimulate. The dose, which would stop pain under ordinary circumstances, was only a stimulant in hæmorrhage, and if the prostration was great the dose must be large.

Dr. Ayer then spoke of the use of ergot. He uses Thayer's fluid extract; and thinks it is better, and more reliable, than the powder.

Dr. Abbot remarked that it is the general impression that it is important to have the powder freshly prepared. He had been informed, however, that most of the powdered ergot sold is ground in large quantities, and supplied to apothecaries who keep it on hand for an indefinite length of time, as its extemporaneous preparation is extremely difficult.

Dr. Cotting thought that the active properties of the ergot reside in the outer portions, or covering, of the fungous growth.

Dr. Ayer then reverted to the use of ether. He said that he seldom gives ether in the first stages of labor; but uses an enema of three grains of tartarized antimony. He had seen more secretion of mucus from the vagina, in consequence of this, than from the use of ether. It also hastens the first stage more than ether. He is satisfied that it produces a great deal of benefit. He uses the valerianate of morphia; since it is less exciting than some of the other forms in which opiates are given during labor. He always fears hæmorrhage where he uses ether in labor; and remains longer with his patient, where it has been given.

Dr. Sinclair then reported the following case, to which he had been called in consultation.

CASE VI.—Mrs. —, aged 21, primipara, strong and healthy in appearance; in labor over twenty-four hours, during which period she had three or four severe convulsions, for which ether was given. Dr. S. did not witness a convulsive paroxysm. The pains continued moderately efficient and the os uteri sufficiently dilated. Although the labor might have terminated safely, as to the mother, without artificial interference, he advised delivery by the forceps, for the reason that the fetal heart pulse had fallen to 105 in the minute. Instrumental delivery was easily effected, but considerable difficulty was experienced in the resuscitation of the infant. Mother and child did well.

Adjourned at 10, P.M.

Subsequent to the regular business of the

meeting, Dr. Sinclair exhibited Dr. Charles's cephalotribe and the *Retroceps* or *asymmetrical forceps* of Dr. Hamon, de Fresnay (sur Sarthe), which Dr. Sinclair believed to be, perhaps, the most handy and effective cephalotribe hitherto made.

Dr. Thierry-Mieg, a distinguished obstetrician of Paris, first directed the attention of Dr. Sinclair to the retroceps. Dr. S. has translated the following description of the instrument from an article by that gentleman in the *Journal des Connaissances Médicales Pratiques et de Pharmacologie, du 10 Mars, 1868*.

"The retroceps is an asymmetrical forceps; one of the blades is introduced on the left side, almost like the original forceps, and the other on the right, but the two branches, united, embrace generally over a quarter or a third of the posterior circumference of the head.

"From this arrangement, it results that the two blades of the retroceps are much more easily applied than those of the common forceps; and the branches are articulated without any difficulty, thanks to the ingenious mechanism with which the handle of the instrument is provided.

"The blades once placed and articulated, extremely moderate tractions are sufficient to cause the head of the fœtus to advance; and for this purpose, only one hand is needed, or even two or three fingers of the hand, when the head is retained on the floor of the perinæum, the most frequent indication for the application of the forceps.

"The secret of the remarkable facility with which the fetal head is made to advance by means of the retroceps, is explained, in my opinion, by the combination of the two following conditions:

"The first consists in this, that the pressure of the instrument, during traction, is exerted upon the part of the head situated in the posterior portion of the pelvis; this pressure tends, consequently, to cause the head to rotate under the symphysis pubis. Indeed, it is this rotation which constitutes by itself alone nearly the whole movement of the head after it has descended into the hollow of the sacrum.

"The second favorable condition is the possibility which the head preserves of turning a little in the blades, without ceasing to be firmly seized—a condition which allows it constantly to adapt its diameters most conveniently to those of the axis of the strait it is obliged to traverse.

"These two conditions are not so well answered by the symmetrical forceps. It is necessary that the branches of the latter

should grasp the head very strongly, and make with it a very solid union, so as not to slip upon it rather than cause it to advance.

"And on account, moreover, of this immobility of the head grasped in the instrument, it is necessary for the accoucheur to make tractions with the greatest care, in the curvilinear direction of the axis, so as not to draw uselessly, notwithstanding all the force he is able to exert.

"Supposing that he should succeed in following the direction of the axis perfectly, he will not, for all that, know how to impress on the head of the fœtus all the little movements in a lateral direction, of flexion and of deflexion, which alone permit it to accommodate successively its diameters in the best manner possible to the more or less oblique and narrow diameters of the canal that it is forced to traverse.

"Hence the resistance that the ordinary forceps is obliged to overcome by force, and that the new instrument spares to the accoucheur.

"Another advantage of the retroceps, and a valuable one, is that it may be introduced, articulated and the necessary tractions made, without changing the position of the patient in the bed. How often is the physician embarrassed, considering himself justified, according to the rules of practice, in applying the forceps, but hesitating, to avoid if possible, for the sake of the poor woman and the interested attendants, the formidable preparations which this application demands. It becomes necessary, in fact, to place the patient across the bed, to have some one hold the head and shoulders, two assistants who will evince sufficient courage to withstand the sight of blood and the operation, each one to hold the flexed legs of the patient; recollecting the fearful length of the classic forceps, the difficulties which one sometimes encounters in articulating them, the force which may be necessary to exert in the tractions; are these not sufficient circumstances to cause the physician to hesitate before revealing to the family the necessity for the application of the instrument?

"With the retroceps, matters are much more simple; the head, let us suppose, is retained on the floor of the perinæum, the resistances are too great or the expulsive force is insufficient, the accoucheur waits the wished-for time, an hour, an hour and a half, &c. He arrives at the conviction that the application of the forceps is necessary. Silently he makes ready. No assistant, no change in the position of the

woman are necessary. The introduction of the blades, for which it is not indispensable to know the exact position of the foetal head, is made with great ease, the articulation equally so. To do this, it is not necessary to remove the bedclothes. Then slight tractions with one hand or one or two fingers of the hand, as already said, suffice to make the head advance, and if before the head is born the operator wishes to disarticulate the blades, he can do so without the least trouble, for it is necessary only to raise a little hinge adapted to the handle of the instrument.

"The retroceps can, moreover, be applied equally well in women confined on their left side *à l'anglaise*. Furthermore, backward and forward tractions, while the head is yet high up, are at the same time favored by that position.

"Finally, it may be added, that the retroceps is an instrument light and small, scarcely weighing 500 grammes, hinged so that it may be doubled up, placed in a little leather bag and easily put in the pocket. This is an advantage not to be lightly regarded by the practitioner."

## Bibliographical Notices.

*Recovery from the Passage of an Iron Bar through the Head.* By JOHN M. HARLOW, M.D., of Woburn. With a plate.\* Read before the Massachusetts Medical Society, June 3, 1868. Boston: David Clapp & Son, 331 Washington Street.

This paper, which is included among the Publications of the Massachusetts Medical Society, has been re-published in pamphlet form, and is for sale at this office.†

For a couple of years during the last decade, the attention of visitors to the Museum of the Medical College, in Boston, was attracted to an iron bar about three and a half (3½) feet long, and about as large round as a crow-bar. This object had an inscription carved upon it, from which inscription, and from the verbal statements which were given to satisfy the curiosity aroused, it was learned that the bar had been driven through the head of a man, by the accidental explosion of a charge of blasting powder, and, that this man, so far from being instantly killed by the injury, had recovered from its effects, and was actually walking on this planet, attending

to the ordinary affairs of life. Such was the outline of a case which has become of classic celebrity.

The physician who attended the patient whose cerebral organism had been comparatively so little disturbed by its abrupt and intrusive visitor, was Dr. J. M. Harlow, the writer of the pamphlet we are noticing, and who reported the case in the Boston Medical and Surgical Journal, Vol. 39, No. 20. In a foot note to the present pamphlet Dr. Harlow says:

"Soon after the publication of this case in the Boston Medical and Surgical Journal, in November, 1848, I received a letter from Dr. Henry J. Bigelow, Professor of Surgery in the Medical Department of Harvard University, requesting me to send Gage to Boston, generously proposing to defray his expenses and compensate him for loss of time. Gage being quite well, and the hole in the top of his head entirely closed, accepted this proposition, and remained in Boston, under the observation of Prof. Bigelow, eight or nine weeks, where he was examined by many medical men, Prof. Bigelow being thoroughly convinced, at a time when the accident had very few believers either in the medical profession or out of it, that the lesion was as represented—that the iron had traversed the brain and cranium as stated. With my concurrence he reported the case, with illustrations, in the American Journal of the Medical Sciences for July, 1850."

Dr. Bigelow having thoroughly investigated the case, and satisfied himself of its genuineness, finally succeeded in forcing its authenticity upon the credence of the profession in this city, as could hardly have been done by any one in whose sagacity and surgical knowledge his *confrères* had any less confidence. But for his persistent efforts, we may assume, with no disrespect to Dr. Harlow,\* the first report of the case might have slumbered unnoticed in an old volume of this Journal, and never have secured its rightful place in the annals of surgery—never have been accepted by the medical public, as a record of important facts, to be relied upon by the physiologist and the metaphysician. It was Dr. Bigelow, also, who had the inscription made on the tamping-iron,† and who persuaded the patient to allow it to be deposited in the Museum of the Medical College. As we learn from Dr. Harlow's pamphlet, the ac-

\* Reproduced as a frontispiece to the present number of this Journal.

† See advertisement.

\* The accident happened, it should be remembered, more than twenty years ago, when Dr. Harlow did not reside in this State.

† An implement used in blasting. It was subsequently reclaimed by the patient.

cident occurred in Cavendish, Vermont, on the 13th of September, 1848. The subject of it was residing in California when he died, which was on the 18th of May, 1861; between twelve and thirteen years having thus intervened between the date of the injury and his decease. During a short period before his death he had several severe convulsions.

Dr. Harlow had the enterprise to obtain the cranium and the iron-bar; and having exhibited them at the last annual meeting of the Massachusetts Medical Society, has most generously presented them to the Museum of the Medical Department of Harvard University. He also gives his obliging assent to our using the blocks which furnished the delineations in his paper, as it appeared in the Publications of the Massachusetts Medical Society, and as it is now published in pamphlet form. It is thus that we have come by the woodcuts in the frontispiece of our present number. The pamphlet describes the original accident, and the wounded parts from the outset; also the course of the case, and the treatment till recovery. It further gives a sketch of the subsequent history of the patient; and concludes with a description of the external and internal *post-mortem* appearances of the cranium.—Ed.

## Medical and Surgical Journal.

BOSTON: THURSDAY, MARCH 18, 1869.

In *The American Journal of the Medical Sciences* for January the leading article is by Dr. Samuel Jackson, Professor Emeritus, &c. &c., on cases of "Double Consciousness."

The most marked of the four cases described was that of a young man who had had violent convulsions, of what precise nature we are not told. For two days after his worst attack he remained in a state of great prostration, with occasional delirium. "About the third day his attendants remarked that his mind was engaged, as it were, in the recital or narrative of imaginary scenes taking place in New York,\* where he supposed himself to be in company and holding conversation with, and finally paying particular attentions to a young lady. He imagined he had a rival for her favors, and entered into a quarrel, which ended in a challenge and a duel. This was the outline of a complete novelette, with various adventures that are omitted, composed at periods of about half an

hour each during three days, and it was observed that when the story was resumed it was in immediate connection with the part where it had ceased. . . . During this period his eyes were open, and to all appearances he was awake and conscious; but when he would suddenly cease, and was asked what he had been doing, he insisted that he had been fast asleep. He was utterly unconscious of anything that had occurred." He ultimately recovered.

We follow Dr. Jackson when he says that the name of double consciousness as applied to such cases as the above is a misnomer; and when he remarks that the main fact is the introduction of a new set of ideas and trains of thought, which ceased at once after different intervals. He, however, goes on to say that through consciousness we have a knowledge of our own existence, and of the world without; that consciousness reveals the operations of the intellectual faculties. Here we must discriminate a little. We subscribe to the ideas of Bishop Berkeley so far as to assume that we are cognizant of the external world by inference—intuitive, of course—derived from our perceptions, and those in turn developed by our sensations; though the inference may be "short, sharp and decisive," as in the experiment suggested by Dr. Johnson of violent contact with a stone. We define consciousness, therefore, as the faculty which gives us, or rather, perhaps, which *is*, the knowledge of our existence and of our mental operations, but which does not of itself alone reveal to us the external world. The consciousness of our mental operations is also—we take it—limited to those of the present instant. But, we have the memory of an act or state of consciousness at the instant preceding the present one; as we have the memory of an act or state of consciousness twenty years previous.

With these brief propositions as to the nature and office of consciousness before us, we glance again at the case of the young man mentioned by Dr. Jackson. He was conscious of mental operations which for the most part corresponded with the facts of his external life as observed by those around him. At periods of about half an hour each, during three days, he was conscious of certain mental operations which did not correspond with the facts of his external existence. It was manifest that those mental operations—of the diseased as well as of the comparatively healthy intervals—actually took place. His consciousness of them, therefore, we have no reason to suppose to have been perverted; though the memory failed to report the statements of consciousness from the diseased to the comparatively healthy condition, and *vice versa*. Where, then, was the lesion?

We have at the periphery, so to speak, sensation. Further within the enclosure we place

\* He was in reality in a distant place.  
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perception. No less central, at least, are thought and memory. But, in the very citadel of the mind, we must at all events locate consciousness. The cerebral disorder, in the case before us, may have made itself felt, perhaps somewhere in the region occupied by memory, perception and sensation. The mental operations, in the abnormal intervals, seem to have been logical enough in their sequence, so far as we are informed; but would appear to have been somehow supplied, from moment to moment, with wrong premises to start from. This is as far as we can get. But, as we have said, we agree with Dr. Jackson that the term double consciousness, as applied to the phenomena in question, is a misnomer. We should conjecture that the condition of mind indicated by them was allied to somnambulism—was something like somnambulism developed out of the waking state, instead of occurring as an episode of sleep.

Curiously enough, we had just finished writing the few words above, and had laid aside the manuscript, supposing we had done with the question of so-called double consciousness, when we took up *Little's Living Age* for February 20, 1869, which was lying with leaves uncut on our table. Glancing at the "Contents," we saw the caption "Disconnected Memories." Turning to the article indicated (which was from the *Spectator*), we found in it an account of a case somewhat analogous to the one described by Dr. Jackson, and which is spoken of by the writer (who signs himself B. K. R.) as a sort of *somnambulism*.

The case, however, we have been considering differs from the one related by B. K. R. in one respect. In the latter, the notions of place and the perceptions of surrounding objects were correct; while in the former the true perceptions of situation and external objects were in abeyance, and were replaced by imaginary ones. There is similarity between the two cases in the phenomena of disconnected memory, and of departure from the ordinary *morale*.

The particular case to which we have alluded, as among those mentioned by B. K. R., is thus described:

"The instance of what might be called 'two lives in one' occurred in a French lady of middle age, the wife of a lawyer in Normandy. In appearance she was robust, but had a heavy look about the eyes, and was of a highly nervous temperament. For about a year before the time I met with her she had been subject to what the physicians (who regarded her as a psychological curiosity) called fits of somnambulism. She would close her eyes at any hour of the day or night, and open them shortly after in a totally different state of consciousness. On one occasion, when her husband did not return from a journey at the expected hour, she became anxious, and sent a servant to the town to inquire if there were letters from him. Soon after she fell into the abnormal state which was easily brought on by excitement or

anxiety. During its continuance her husband arrived at the chateau. She welcomed him joyfully, inquired about his journey, ordered refreshments for him, &c., but after he had quitted the room she soon awoke as from a dream, and eagerly inquired if the servant had returned and what tidings he had brought about her husband, entirely unconscious of having just seen and conversed with the latter—indeed, she could hardly be convinced of the fact. In each state she always went back immediately to the moment at which she had quitted that state, whichever it might be, taking up the thread of her life there and recollecting what had passed during its continuance, while the intermediate period seemed blotted out of her memory for the time.

In her dream state, if it may be so called, she would talk in the *patois* of her native village (which she carefully avoided at other times), and would sing very sweetly provincial ballads, which in her normal state she could rarely be induced to do by her friends, being excessively timid and nervous. Her senses while in the dream-state were quite alive to all the objects around her; she could even use her needle, and on one occasion she noticed a rent in the soutane of the priest and mended it very neatly—though when she awoke she would scarcely believe that it was her work, not having the slightest recollection of the circumstances. In many respects she seemed to return almost to the character of childhood, doing many incongruous things; for instance, she would want to walk out, or order the carriage in the middle of the night without due cause—was wayward and petulant if contradicted, and so little under the control of reason that it was considered unsafe to leave her with servants only. To her husband or the priest she would submit immediately.

When under the influence of this sort of somnambulism, her state appears to have somewhat resembled that which I have since heard may be induced by mesmerism. Its peculiarity consisted in the accuracy of the impressions made on her by outward objects, whilst all that happened, after vanishing like a dream, was distinctly remembered the next time she fell into this waking sleep; thus she lived two lives, each with a memory of its own, but linked together by recognition of the same persons and objects.

It should, however, be observed that these two lives were not simultaneous, but alternated with each other."

The "*Spectator*," in reviewing the case of B. K. R., makes the following remarks:

"It is, as we understand it, the case of a lady with what we may call a *forked* memory—i.e., two distinct states of memory, each of them grafted on to a common stock dating more than a year previously, but growing separately since that time. This, we say, is the construction we put on B. K. R.'s account of the Norman lady's case; though he describes it as two quite distinct and alternating states of memory, 'but linked together by recognition of the same persons and objects.' She tells us indeed that each memory, both the 'normal' and the 'abnormal,' went back straight to the last moment when it was interrupted by the transition to the other state. But this seems to us to imply that *both* went back to the time before the frac-

ture took place. If she recognized her husband, and servants, and house, and furniture, and remembered how to sew and sing, &c., in the 'abnormal' state, as she did, she clearly had a good stock of experience at her service, gathered from the time before her disease began. She could not have known her husband without remembering her marriage, nor her songs, probably, without remembering something of the time when she learned them, &c. . . . We suspect that both states were really abnormal, although only one of them seemed to change the lady's character and to impress upon it a more childish and less self-conscious aspect—that there had been, when she was first seized, some virtual untwisting of the thread of her life, one of the untwisted fibres connecting it with the condition in which she seemed most like herself, and another with the trance-like condition described by our correspondent, in which she lost her usual self-conscious timidity, her consideration for others (excepting her husband and the priest), and became wayward and wilful."

These suggestions seem to us sound, except that we do not like the term "forked memory." That expression implies two lives of recollection running synchronously back to a common point of departure. The specific term—alternate memories—would perhaps aptly designate the two cases we have been considering; while the general denomination—disconnected memories—would classify them with some other instances of aberration of the faculty of recollection.

We have reason to believe that some of our readers are disturbed by the discussion of the day on cerebral physiology and pathology; they seem to fear that we shall be led into the vagaries of materialism. We see no ground for apprehension on this head. All so-called knowledge is more or less a matter of inference, and is liable to error, except that which comes from consciousness. Even a mathematical demonstration, as being liable to inaccuracy, is less certain than the declarations of consciousness.

Your consciousness of your personal identity and of your mental operations are pure knowledge which can never err so long as you have the *mens sana in corpore sano*. Though disease distort the mental vision, nothing can take from the sound man the knowledge that the *ego* is one and indivisible. No matter how many modes of manifestation—under the names of reason, memory, perception, and so forth—are ascribed to the mind, the *ego* in which they inhere remains the one indivisible self; and it is at least probable that what we call the mind, acts as a whole in the employment of each and all its so-called faculties. In like manner, therefore, it matters nothing if the mind use the entire brain in the performance of each and all its functions, or if one faculty is manifested and developed by the use of one portion of the cerebral nerve mass, and another faculty by the use of another portion. And, conversely, it signifies not

at all, if it be proved that a lesion of a certain portion of the brain impairs or destroys one mental faculty without injuring other faculties. The statement that this or that mental power or function resides in this or that part of the brain, is not necessarily more than a figure of speech. In our opinion, the encephalon is only the centre of a telegraphic system, as it were, by means of which the mind communicates with the rest of the body, and with the external world. Even if Phrenology had proved its claim to be a science, and had shown that the brain was divided into special districts, for each faculty, sentiment, appetite, the statement that the latter were merely attributes of the one central being, would have been by no means invalidated, and the well-established principles we have re-stated would have remained intact. Let the scalpel, then, dissect the nervous fibres; the microscope search out their intimate structure; the chemical re-agent analyze their composition; and let such explorations tell us if they will that every act of thought involves a cell growth and a cell decomposition, with the expenditure of a certain amount of phosphorus. What then? Every inference, founded on these or other investigations, which comes in collision with the revelations of consciousness, falls to the ground. For, we repeat it, that is the only mental faculty which is the source of unerring knowledge.

#### CONSUMPTION IN MASSACHUSETTS.

We have obtained from Dr. George Derby advance sheets from the 26th Registration Report, which he is preparing for publication. We bespeak attention to the following extracts:

"Consumption caused the death of 4,362 persons in 1867; of which number 1,974 (45.2 per cent.) were males, and 2,388 (54.8 per cent.) were females. This number is 233 less than in 1866, and absolutely less than in any year of the past fifteen, with one exception.

The deaths by quarters of the year were as follows:—

First quarter,	1,129 or 25.88 per cent. of the whole.
Second "	1,102 or 25.26 " " "
Third "	1,083 or 24.83 " " "
Fourth "	1,048 or 24.03 " " "

Divided by seasons as follows:—

Spring,	1,179 or 27.03 per cent. of the whole.
Summer,	1,027 or 25.54 " " "
Autumn,	1,102 or 25.26 " " "
Winter,	1,054 or 24.17 " " "

Deaths from Consumption in the Counties, 1867.  
—Percentages.

[Dr. Derby's table is here omitted.]

Taking the last column as the measure of healthfulness with regard to this disease alone, the counties stand as follows: Franklin, Berkshire, Hampshire, Dukes and Nantucket, Barnstable, Norfolk, Hampden, Plymouth, Worcester, Bristol, Essex, Middlesex, Suffolk.

When the annual mortality from consumption in Massachusetts is regarded by itself, or compared with the deaths from all causes, or with the mortality from this cause in other countries, and in other parts of the United States, the impression left is liable to be an erroneous one. The figures are of a certain magnitude, and the conclusion may be hastily drawn that where a scourge prevails which causes nearly one death in every five of all ages, long life cannot be expected. We have seen that this is far from being the case, when considering our death-rate in comparison with that of other countries, in this and former reports. In point of fact the very largeness of the proportion of deaths from consumption to deaths from all causes, shows how great is our immunity from other fatal diseases. The malarial fevers which under various names are so destructive in our Southern and Western States, are almost completely unknown on our soil. Calculous diseases are exceedingly rare, affections of the liver infrequent. Our climate, although severe, does not induce that feeble condition of the body which renders it incapable of resisting the morbid influences by which all communities are surrounded. But even as regards diseases of the lungs in their various forms, we are not so afflicted as might at first appear, since, although consumption is a very common and fatal disease in Massachusetts, there are other affections of the lungs almost equally destructive of life in other countries from which we are singularly free.

*Number of Persons dying annually from Diseases of the Respiratory Organs (Consumption included) to each 100,000 living, in Massachusetts and in England.*

## MASSACHUSETTS.

	1863	1864	1865	1866
Consumption, . . . . .	372	376	368	361
Bronchitis, . . . . .	16	15	14	16
Pneumonia, . . . . .	137	143	118	128
Pleurisy, . . . . .	10	11	7	7
Laryngitis, . . . . .	1	1	1	1
Asthma, . . . . .	4	4	4	3
Diseases of the lungs not otherwise described, . .	5	5	4	4
Totals, . . . . .	545	555	516	520

## ENGLAND.

	251	258	259	265
Consumption, . . . . .	157	189	175	197
Bronchitis, . . . . .	119	119	108	120
Pneumonia, . . . . .	4	5	4	4
Pleurisy, . . . . .	7	8	6	6
Laryngitis, . . . . .	18	20	19	17
Asthma, . . . . .	24	25	23	23
Diseases of the lungs not otherwise described, . .				
Totals, . . . . .	580	624	594	632

The preceding table presents evidence on this point drawn from the Registration Reports of Massachusetts and England for the four years ending with 1866.

The points of difference which seem most important to observe are, first and chiefly, the small mortality from bronchitis in Massachusetts as compared with England; the proportions are eight to ninety-two, or nearly one to twelve. This more than compensates for our greater mortality from consumption. The proportions for this disease are 58.8 in Massachusetts and 41.2 in England. From the two diseases combined there are 46.7 deaths in Massachusetts to 53.3 in England.

The mortality from pneumonia and pleurisy is seen to be a little greater in Massachusetts; but less from laryngitis, and from asthma. It is probable that the dyspnoea resulting from enlarged bronchi in chronic bronchitis is frequently called asthma.

Of diseases of the lungs not classified or particularly described, there are more in the English reports; but the aggregate of deaths from affections of the respiratory organs (including consumption), in a given number of the people of all ages, is greater in England than in Massachusetts.

*The liability to death from such cause is as 53.2 in England to 46.8 in Massachusetts.*

*Diminishing Mortality from Consumption in Massachusetts.*—The following table will make evident a fact to which reference was made in the Registration Report of 1865, and which well illustrates the value of vital statistics, since without their aid it could not be proved:—

*Mortality from Consumption in Massachusetts in each of the past fifteen Years.*

YEARS.	Population.	No. of Deaths from Consumption.	Deaths from Consumption to each 100,000 living.
1853, . . . . .	1,075,007	4,593	427
1854, . . . . .	1,103,351	4,611	418
1855, . . . . .	1,132,364	4,750	419
1856, . . . . .	1,151,455	4,701	408
1857, . . . . .	1,170,862	4,625	395
1858, . . . . .	1,190,592	4,574	384
1859, . . . . .	1,210,656	4,704	388
1860, . . . . .	1,231,066	4,557	370
1861, . . . . .	1,238,110	4,522	365
1862, . . . . .	1,245,310	4,269	343
1863, . . . . .	1,252,500	4,667	372
1864, . . . . .	1,259,710	4,733	376
1865, . . . . .	1,267,031	4,661	368
1866, . . . . .	1,274,310	4,600	361
1867, . . . . .	1,281,700	4,362	340

A comparison of the first two columns shows at a glance that the number of deaths does not increase with the population, and



in the third column, representing the mortality to a fixed number of the people, the constant improvement is plainly seen; not always from one year to the next, but perfectly evident when two or three years are taken together.

Comparing the first group of five years with the last group of five years, it is seen that the annual gain in each 100,000 of the population is 51 lives; this gives as the actual saving of life in the last five years 3,220 persons, or 644 in each year. From some cause, or combination of causes, deaths from consumption in Massachusetts have diminished by that amount, and the improvement seems to be still going on. It is of the utmost importance to discover what these causes are; but here statistics fail us, and we are left to conjecture. Our own belief is that they are to be found in the advance of medical science, which has given to physicians a better knowledge of the nature of the disease, derived from pathology; a better mode of treatment, derived from the careful observation of cases, and from modern discoveries in chemistry and physiology; and a greatly improved acquaintance with the means by which consumption may be avoided by those predisposed to it by inheritance, derived from all these sources combined.

This knowledge is becoming diffused among the people, so that all intelligent persons now know more about the prevention of consumption than the wisest physicians knew fifty years ago.

Fresh air by day and by night, strong and nourishing food, dry soil on which to live, sunlight, and warm clothing, are the means of saving many lives which would have been hopelessly lost in the preceding generation. If our conjectures are correct this improvement may be expected to continue, and everybody can help to make it greater. Ventilate the school-rooms, and the workshops, and the stores, and the houses; in cold weather let the air, comfortably and equally warmed, be generously supplied from without in a constantly flowing current. Let those who can provide it in their homes remember that an open fire, which sends two-thirds of the heat up the chimney, furnishes the best ventilation for a room of moderate size which the ingenuity of man has yet devised, and that the heat escaping by the flue is the price to be paid for it. Let in the sunlight, and never mind the carpets; better they should fade than the health of the family. When a man proposes to build a dwelling in a swamp, warn him of his danger.

HARVARD UNIVERSITY.—The following was the order of exercises at the Medical Commencement at the Massachusetts Medical College, Wednesday, March 10, 1869:—

Prayer, by Rev. Professor Andrew P. Peabody, D.D., LL.D. Dissertations selected for public reading:—1. *Hæmorrhage*. Frederick Lysander Burden, Scituate, R. I. 2. *Ergot of Rye*. Frank Winthrop Draper, Wayland, Mass. 3. *Digitalis Purpurea*. Francis Webster Goss, Salem, Mass. 4. *Cerebro-spinal Meningitis*. Charles Inglis Margeson, Wilmot, N. S. 5. *Hip Disease*. John Hildreth McCollom, Medford, Mass. 6. *Hypodermic Injections*. George Harlin Pillsbury, Lowell, Mass. Conferring of the Medical Degree, by Prof. Henry J. Bigelow, M.D., Dean. Conferring of the Degree of Dental Medicine, also by the Dean. Address by Prof. Edward H. Clarke, M.D. Benediction.

The dissertations were highly creditable to their authors.

The Address by Prof. Clarke was learned, far-reaching and suggestive. After saying that knowledge was increasing in a geometrical ratio, and that none but a seer or a fool would venture to cast the scientific horoscope of the next twenty years, he took the ground that the question of the present position of medicine offered itself under two aspects—1st, that of its relation to other sciences (this topic was waived as too vast for the occasion); 2d, of the relation of medicine, or rather of medical men, to the community—not as practitioners, but in more occult affinities. He then proceeded to discourse upon the attitude of our profession toward education in its broadest sense—inclusive of the school, the college, the press, and public opinion—toward law, and toward religion.

Female physic, if we may be allowed the term, was alluded to by Dr. Clarke. Throw no obstacles, he said, in the way of the experiment; but, he conjectured, it would be found that “a woman could not develop into a man, or a man into a woman.”

#### NOTES FROM THE UNION MEDICALE.

At the Académie des Sciences there has been a discussion on the nature of *solar light*, between MM. Faye, Chasles, Sainte-Claire Deville and Le Verrier. From the tenor of this discussion, it would appear

that the light of the sun is not attributable to the combustion of hydrogen; but that it proceeds from a mass of solid matter surrounded by hydrogen.

At the Mauritius, Dr. Jessier claims to have cured intermittent fever by phenic (carbolic) acid, in a patient with whom quinine had failed. Three fourths ( $\frac{3}{4}$ ) of a grain of the pure acid dissolved in twenty (20) drops of water were injected beneath the skin. MM. Barrant and Jessier consider that intermittent fever is due to the presence in the blood of a microscopical ferment—vegetable or animal.

#### BIRTH OF AN EXTRAORDINARILY LARGE CHILD.

—Dr. Brotherston, of Alloa, communicated to the Edinburgh Obstetrical Society, the following record of the birth of a gigantic fœtus:—I was called upon, Wednesday morning last, about half past five, to attend on Mrs. F., Alloa, who was in labor with her seventh child. Matters went on as usual till the head was expelled, and I expected that the next pain or so would terminate the delivery; but, on the contrary, though the pains were severe, and I applied a moderate degree of traction to the head, during nearly twenty minutes, I could not deliver the body of the child; the shoulders appeared to be the obstacle, and the right arm-pit could be reached by the finger without much difficulty. I sent for Dr. Duncanson, who came immediately, and he brought my instruments with him; we then applied the blunt hook to the right axilla, and, by traction of no ordinary kind, extracted a dead male child of the following dimensions:—Weight, 17 lbs.; length, 23½ inches; circumference round the head over the occipital and frontal prominences, 15 inches; circumference around shoulders, 20 inches; circumference around chest, 15½ inches; circumference around stomach, 17 inches; from funis to sole of foot, 10½ inches; from funis to head, 13 inches; circumference of thigh, 9 inches; length of leg from trochanter to heel, 10½ inches; length of arm, 10 inches. The measurements were taken in my presence by Dr. Duncanson and Mr. F., the father of the child. Mrs. F. is making a very favorable recovery. The father is six feet high—a very proportionate man, and rather good-looking, aged 44; weight 13 stone. The mother is 5 feet—rather stout, aged 40—was never weighed, but looks about 11½ stone. The child was perfectly formed in every way—no signs of hydrocephalus what-

ever. This will be seen by the measurement of the head, which was 15 inches and well formed. The child was living when the head was expelled from the pelvis and vulva, as it gave a convulsive effort, as if trying to pull back the head occasionally. This lasted about ten minutes. When these efforts went off, I believe the child died. I suppose the cause of death was pressure of the cord, the body of the child being of such a size as to effect this most readily. When the child was extracted, it was quite dead; its right humerus gave way near the neck, from the pressure of the blunt hook. There was no hemorrhage afterwards worth mentioning—just what is usual. Dr. Keiler thought this was about the heaviest child he had ever heard of. He had shown a fœtus some time ago, which had been delivered by craniotomy, and whose shoulders were so large that great difficulty had been caused in extraction. Even now, although preserved in spirit for such a length of time, this child still looked a giant, but he did not think it would weigh more than 14 lbs. He had heard of an American baby which weighed 19½ lbs. at birth. Dr. Pattison said there was a child in Dr. Thatcher's museum which weighed 16 lbs.—*Dublin Medical Press and Circular.*

In a case of labor we attended March 3d, 1869, we had a similar difficulty with the shoulders of the fœtus (weight 10½ pounds). We had used much force in delivering the head with the forceps; but with all the traction we dared to apply with both hands grasping it, we could not start the shoulders until we had engaged the index finger of the right hand in the left axilla of the fœtus. Then seizing the chin with the remaining fingers of the same hand, while the left hand was applied to the back part of the vertex, we with some difficulty extracted. The child was partially asphyxiated, but was resuscitated.

**VERTICAL DISLOCATION OF THE PATELLA.**—George M. Sternberg, M.D., Ass't Surg. and Brevet Major, U.S.A., in a letter to the *Philadelphia Medical and Surgical Reporter*, dated Camp Supply, Ind. Ter., Jan. 18th, 1869, says:—

“In the *Reporter* for December 19th is an account of a case of vertical dislocation of the patella, by Dr. Samuel Rittenhouse. I had a similar case about three months since. A colored cavalry soldier while riding his horse came in violent collision with another

mounted man. He dismounted, and finding that he was unable to walk, was carried by some comrades to his tent, and I was sent for. Upon examination I found his left leg extended and all motion of the knee-joint prevented by the patella, which was tilted upon its outer edge, the anterior surface looking outward. The patient was suffering severe pain in the joint.

"I immediately brought him under the influence of chloroform, and flexing the thigh upon the pelvis I grasped the patella in my right hand, and the ankle with my left. Then at the same moment I flexed the leg upon the thigh with my left hand and tilted the patella over to its place with the right.

"The reduction was accomplished very easily, the bone coming to its place with a loud snap. An hour after, the man was walking around without pain or inconvenience, and continued to perform all his military duties as usual."

**THE SIAMESE TWINS.**—A surgeon who would not hesitate to attempt the separation of two weakly and delicate children would hesitate to interfere with two aged men. In the case of Chang and Eng there is evidently a hollow proceeding for some distance along the band of union, and connected with either peritoneum. The question is whether the one cavity is continuous with the other, and, if so, what are their contents? We have given above good reasons for dreading the presence of a portion of either liver. This organ is so very plastic that it might easily enough be united in the two and yet give rise to no discomfort in the uniting band. That the one does not feel what is done to the other, is of no consequence; that the union is close between the two is clearly shown by their liability to simultaneous attack by constitutional maladies, as ague and measles. In the case of the former disease the periodicity was identical in both.

The prospect which now faces these unfortunates is no doubt a hideous one, but the immediate dissolution of both is more appalling, and we are thoroughly convinced that our Surgeons have acted wisely. Sound advice, and an almost womanish regard for human life, are the grand characteristics of English Surgery, and we are prouder of men who can dispassionately and skilfully consider the chances for and against the success of an operation, and finally decline to perform it, than we should be of one who, with a reckless disregard for consequences, would adopt a course which might end unfortunately both for the patient and himself.—*Lond. Med. T. & Gaz.*

**DEATH FROM CARBOLIC ACID.**—We lately noticed the report of a death from the injection of carbolic acid into the bowel which occurred in the Worcester Infirmary. It seems, from a correspondence which has lately been published in the *Times*, that the mistake arose from the use of the word "injection." The Surgeon, Mr. Budd, directed the use of a solution of carbolic acid, which was to be injected, a tea-spoonful at a time, with a glass syringe in the case of a patient suffering from urinary fistula. The dispenser mislaid the direction, and sent the solution to another patient, who was also in the Hospital with urinary fistula, to whom the nurse administered it as an enema. The man died within a few minutes. Mr. Budd promises the publication of an accurate account of all the circumstances of the case after it has been investigated at a special meeting of the governors of the Hospital.—*Ibid.*

**TREATMENT OF EPILEPSY.**—Dr. H. Beigel, speaking of epilepsy, says:—

Concerning treatment, we are all aware that amongst the large number of remedies, such only have any visible effect as belong to the class of nervines. According to my experience, which extends over several hundred cases, there are only two remedies which render good, and even very good service, in the treatment of epilepsy—namely, large doses of bromide of potassium and morphia if used hypodermically. I have tried nearly all drugs recommended by the authors on epilepsy, but failed to see any result worthy of notice. But bromide of potassium has doubtless the power of delaying the attacks, so that a patient who has previously had perhaps several fits in one week, has one every few months—a delay which remains stationary in many cases, even after the remedy has been left off, provided it has been taken for a sufficiently long period. The same result is obtained by hypodermic injection of morphia, which acts much more rapidly and intensely. I use the bromide of potassium in children and in such adults as are ill-nourished, and employ hypodermic injections if no other complication exists with true idiopathic epilepsy.—*Ibid.*

At a meeting of the Medical Society of London, Jan. 4, 1869, a communication was read from Dr. B. Foster on Etherized Cod-liver Oil—that is, the addition of 10, 15, or 20 minims of pure ether to every 2 drachms of the oil, which he has found less nauseous, and more easily digested than the oil alone.

## Medical Miscellany.

At the meeting of the Boylston Medical Society, held Friday, Feb. 19th, a first prize was awarded to Mr. F. W. Draper for an essay on the Physical and Therapeutical Relations of Ergot of Rye, and a second prize to Mr. J. J. Putnam for an essay on the Physical Principles which govern the application of Counter-irritants.

THE Dental Faculty of Harvard University entertained and were entertained at Prof. Keep's on Wednesday evening of last week. In the course of the evening there was a lively discussion of the process of filling. At the same time, our types had just ranged themselves under the magic spell of "the Professor" to show how well the dentists have developed their wisdom teeth.

DURING the term of service, March, April and May, the undersigned will be happy to have practitioners and third-year students visit the Massachusetts Charitable Eye and Ear Infirmary any day from 9 to 11, A.M. Operations generally take place at 9½ to 10, A.M.

HASKET DERBY,  
F. P. SPRAGUE,  
B. JOY JEFFRIES,  
ROBERT WILLARD.

**CORRECTION.**—In the list of graduates of the Massachusetts Medical College, printed in our last issue, is the name of Dr. Erastus Emery. His residence should be given, we are requested to say, as Chatham, Mass., instead of Binghamton, N. Y.

We do not vouch for the following item, which has been sent us. A surgeon in a distant place is said to have removed a tumor weighing 63 lbs., and thinks of presenting it to General Grant.

**A PROFESSIONAL CONUNDRUM.**—Why is a convalescent like the U. S. Treasury Department? Because he has got about well!

**ON LUMBAR COLOMOTY.** By C. F. MAUNDER, F.R.C.S.—There are several diseases or states of bowel in which this operation is practised.

1. For irremediable obstruction in order to prevent speedy death.

2. For obstinate stricture, malignant or benign, situated either high up or low down in the rectum, for which relief to distressing and exhausting symptoms cannot be obtained, after a judicious trial, by more simple measures.

3. For painful cancer of the rectum (non-obstructive), in which the patient's life is rendered miserable, and would soon be closed by exhaustion—consequent partly on excruciating pain caused by the passage of feces over the diseased and exquisitely sensitive bowel, and depriving him both of appetite and of sleep; and partly on profuse discharges, purulent, sloughy, and sometimes dangerously hemorrhagic. In this instance, the disease, though incurable, progresses more slowly when the morbid structures are no longer irritated, and a vast amount of pain is prevented.

4. For irremovable tumor of the rectum.—*London Med. Times and Gazette.*

**DEATH IN THE VAT.**—A sad accident, causing the deaths of two men, at Trowbridge, during the past week, by suffocation from carbonic acid in a beer vat, reminds us of having, some years ago, seen a suggestion made in a Calcutta newspaper that there should be attached to all such vats a light elastic tube, with wire coiled on the inside to prevent constriction, and a mask, with a valve to permit the escape of expired air, to be applied, in all cases, over the face of a person descending for the purpose of cleaning out the vat. Had such an apparatus been in use in the instance under notice, two lives would have been saved. When a vat contains refuse hops and grains above the level of the outflow tap, it is, of course, impossible for poisonous gases to escape through that channel, so that opening the tap for some hours will not necessarily evacuate the gaseous contents, and, time being valuable in these go-ahead days, it seems to us that it would be extremely desirable that a simple apparatus, such as that above described, should be introduced for trial at least in some of our large breweries.—*Ibid.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 10-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—The following communication has been received:—Galvanism as an Antidote for Poisoning by Gelsemium Sempervirens.  
Dr. O'G.'s remittance received from abroad.

**PAMPHLETS RECEIVED.**—The Life of the Trichina, By Rudolph Virchow, M.D., Ph.D., Prof. University of Berlin. Translated by Rufus King Brown.—Fifty-fifth Annual Report of the Trustees of the Massachusetts General Hospital, 1868.—Addresses delivered at the Twentieth Annual Commencement of the Medical Department of Georgetown College, D. C., with a Catalogue of the Faculty and Students.

**DEATHS IN BOSTON** for the week ending Saturday noon, March 13th, 107. Males, 54—Females, 53.—Accident, 3—aneurism, 1—apoplexy, 1—disease of the brain, 2—inflammation of the brain, 2—bronchitis, 1—burns, 1—cancer, 1—canker, 2—cholera infantum, 1—consumption, 18—convulsions, 7—croup, 3—cyanosis, 1—debility, 1—dropsy of the brain, 1—erysipelas, 2—scarlet fever, 10—typhoid fever, 1—hemorrhage, 1—disease of the heart, 4—infantile disease, 4—insanity, 2—disease of the kidneys, 4—congestion of the lungs, 2—inflammation of the lungs, 9—marasmus, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 3—puerperal disease, 1—scrofula, 1—teething, 1—tumor, 1—unknown, 10—whooping cough, 1.

Under 5 years of age, 51—between 5 and 20 years, 8—between 20 and 40 years, 17—between 40 and 60 years, 16—above 60 years, 15. Born in the United States, 76—Ireland, 23—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MARCH 25, 1869.

[VOL. III.—No. 8.]

## Original Communications.

### HAY FEVER OR ROSE COLD.

Clinical Lectures upon Spasmodic Coryza, or Periodical Asthma, with Naso-bronchial Congestion, delivered at the Hôtel-Dieu by Prof. Noël Gueneau de Mussy.

Translated for the Journal from the Gazette des Hôpitaux, by W. F. MERRILL, M.D.

B—, aged 42 years, born in Holland. The only pathological family history which can be elicited is that his mother was subject to sore throats. Health perfect during childhood. In 1845, when in the army, he was taken, after exposure, with fever and a pain in the side, which confined him to the hospital thirty-six days. He affirms that he uses spirit to excess but rarely, his daily allowance consisting of a litre of light wine and two glasses of brandy.

For the last nine years he has occupied a dark and damp lodging in Paris; nevertheless his general health has been good with the exception of occasional gastric pains and sore throats, which have occurred at two different periods, and have resulted in abscesses of the tonsil. He is also very subject to coryza during the winter. In 1845, he was affected for the first time, *during the winter*, with a serous discharge from the nose, accompanied by sneezing, itching and watering of the eyes. At the end of a month these symptoms disappeared. The following winter, for the first time, he experienced a well characterized attack of spasmodic coryza, which lasted about a month, and recurred in the succeeding year, in June, following an attack of tonsillitis, with the symptoms which we find to-day with the third attack.

The trouble has commenced this year at the same epoch as that of last year, i.e., in the early part of June.

The patient felt, in the first place, a sensation of painful fulness and weight in the head; his eyes watered; soon he began to sneeze and his nose to discharge; then the throat became painful. Later the pain spread to the left ear, accompanied by an uncomfortable blowing sensation. The patient

coughed a little, suffered from dyspnoea, and was prevented from sleeping by headache and the respiratory troubles. He is now dejected, exhausted and pale, and has a puffy look about the eyes. Upon the face and the back are quite numerous cicatrices and pustules of acne. There are patches of pityriasis upon the chest, and of intertrigo in the genito-crural fold. By everting the lower lids we find them much injected, velvety, and covered by fine granulations; the pharynx is red and very vascular, and numerous red granulations can be detected through the layer of transparent mucus which covers it like a varnish. Others can be seen upon the pillars. On the left posterior pillar is one yellow at the centre, and resembling a pustule of acne. The uvula is large, red, swollen, lengthened and twisted at its lower extremity, which sweeps the base of the tongue, behind which it conceals itself. The posterior part of the roof of the mouth is sown with small, whitish, semi-transparent granulations, resembling insects' eggs, the ordinary appearance of granulations in that region. Over the chest, including even the præcordial region, the sonority is slightly exaggerated, while the respiratory sounds are feeble, especially at the bases. In front, the expiration is sibilant. There is slight emphysema. The arteries are a little hard, sinuous, and at the apex of the heart a slight prolongation is noticed.

The patient complains of an habitual state of discomfort, consisting of a general malaise, headache, ear-ache, and a sensation of tightness in the nose, throat, and chest. In addition to this he is subject to paroxysms, occurring several times a day, the first usually in the morning about four hours after rising, and the others at intervals of about two hours. Ordinarily they grow feebler and disappear by evening. Sometimes, however, they recur during the night, and are accompanied by such difficulty in respiration as to force the patient to sit up. The phenomena accompanying these paroxysms succeed one another in the following order:—

They commence by the appearance or aggravation of the headache, the principal

[WHOLE No. 2143.]

location of which is in the frontal and occipital regions. At the same time there is a sensation of weight in the head; soon he has a pricking feeling in the nose, repeated sneezing, and an abundant secretion of viscous serum from the nostrils; the eyes itch and water. To these symptoms must be added a slight cough, followed by a frothy, viscous expectoration, mixed with small pearly masses. The painful sense of constriction in the throat often appears to the patient the cause of the dyspnoea.

After four days of unsuccessful expectant treatment gr. x. of sulphate of quinine were prescribed, and the pharynx and uvula touched with a solution of perchloride of iron. An immediate amelioration was the result. The paroxysms diminished in frequency and severity, and the nasal secretion became much less abundant. The patient slept, recovered his spirits, and thinking him on the way to recovery, I discontinued the local application; but three days later, the weather having become considerably colder, the coryza returned as severe as ever. The uvula and pharynx, which had been somewhat modified by the astringent applications, were as congested as on the first day. Should the suspension of the local treatment or the moist coolness of the weather be blamed for this relapse? I am now going to employ local treatment alone for several days, and if the result is not satisfactory, shall excise the uvula, which must be one of the principal causes of the oppression and constriction in the throat.

These complications and the rôle which I attribute to them do not affect my diagnosis of spasmodic asthma. In several of the cases which I have seen the granular condition has existed; it may act as a predisposing cause of the coryza, as it has appeared to me to act in the laryngismus stridulus of children. A more exceptional fact is the occurrence of the two first attacks in winter; but if, as I believe, the emanations from hay and other causes assigned for the disease intervene only as exciting causes, it can be understood that certain idiosyncrasies or circumstances in the life of the patient may modify the influence of the season.

Certainly, in four consecutive years this man has had a coryza, lasting longer than ordinary coryzas, preventing him from work and sleep, and accompanied by dyspnoea and nervous symptoms, with irregularly periodical exacerbations.

Twice in succession this affection ap-

peared in June; the two preceding years it appeared in the winter. If it be not the disease in its most marked and classic form, still I think that no other name can be applied to it. There is no law without exceptions for the periodicity of diseases.

This patient presents a form of the disease which I shall call spasmodic coryza, periodical asthma, or naso-bronchial congestion, which has also been designated as hay asthma, hay fever, summer asthma, or catarrhal summer asthma. My house physician and friend, M. Allan Herbert, has called my attention to an interesting article upon the subject by Elliotson, which eminent pathologist considers the affection as a mixture of asthma and catarrh. These are in reality the two essential elements of the disease.

Following the localization of the morbid action, we recognize two forms which may succeed or combine with each other.

The first is a coryza which generally returns in the late spring or early summer, lasting five or six weeks, sometimes even two or three months, with an obstinacy, an abundant discharge from the nose, and a sneezing which render it a veritable infirmity.

Sometimes the commencement is marked by febrile symptoms, after which the coryza sets in with paroxysms, at times periodical, at times brought on by outside causes, such as the heat or the weight of the atmosphere, the emanations from hay or exposure to the rays of the sun.

During these paroxysms the eyes, which become red and watery, are the seat of an insupportable pricking and itching, to which the rubbing and scratching, from which the patients cannot restrain themselves, give momentary relief; the lids are red and cedematous. These morbid sensations spread to the nasal fossæ, and then commences an almost continuous sneezing, an abundant serous discharge from the nostrils; the head becomes painful from the congestion of the nasal cavities and the violence of the shocks. The pain, most severe in the frontal region, sometimes extends to the occipital region, and may persist in the intervals of the paroxysms with severity enough to trouble the sleep.

Often, among the phenomena of the coryza, the spasmodic element shows itself, as in our patient, by a slight dyspnoea which may contribute to the insomnia. This is preceded by a sense of heat, pricking and tickling in the throat. At times the congestion may extend to the ears by the Eus-

tachian tubes, as in this case, in which the patient complains of disagreeable sensations and a blowing sound in the left ear.

The coryza may be the second part of the disease, being preceded several days by a catarrhal conjunctivitis with redness, swelling, and an insupportable tickling and itching. The action of the lachrymal and meibomian glands is exaggerated, and each sneeze causes, as it were, a spurt of the liquid which they secrete. In some cases we find an abnormal development of the carunculæ of the lids, necessitating removal.

Dr. Bostock, in Vol. viii. *Med. Chirurg. Transactions*, gives a very interesting example in his own case of this conjunctival catarrh which occasionally precedes the coryza.

This physician, who was forty-eight years of age when he wrote the account of his case, had been subject to the disease for forty years. At the beginning or the middle of June each year, he experienced in the eyes a sensation of heat and fulness, more pronounced along the ciliary edges, and especially toward the internal angles. In the beginning the only objective phenomenon was a slight injection and watering. This condition gradually increased, until he experienced an insupportable itching and pricking, as though small points were being driven into or pressed against the globe of the eye. There was an abundant secretion of thick mucus by the inflamed conjunctivæ.

These morbid phenomena continued in paroxysms from the second week in June until the middle of July, during which time the eyes were very rarely in a normal condition. The more violent paroxysms, however, occurred two or three times a day, and were generally provoked by some outside cause, such as the heat of the sun's rays, dust, or heat with dampness. After a longer or shorter duration the inflammation and hyper-secretion of mucus gradually decreased, but, even in the intervals, the sense of constriction and stiffness in the eyes continued.

Eight or ten days after the first appearance of the trouble the patient complained of a heavy feeling in the head, more marked in the frontal region. To these symptoms succeeded violent crises of sneezing, which recurred at irregular intervals.

Eight years later, when about 16 years old, Dr. Bostock began to experience, after these symptoms, a sense of tension in chest, and dyspnoea, accompanied by irritation of the throat and trachea. The chest was not exactly painful, but seemed to refuse en-

trance to the air. The voice was hoarse, and prolonged conversation could not be indulged in. Limited in its earlier phases to the eyes and nostrils, the morbid process had extended in a slight degree to the respiratory organs.

When the phenomena above indicated had lasted for some time, the patient began to suffer from a general malaise, muscular weakness, exhaustion, anorexia, insomnia, night sweats, and a loss of flesh. The pulse rose from 80, its ordinary frequency, to 100 and even to 120. All these symptoms disappeared toward the end of July, but the weakness and languor persisted for a month or six weeks. Fresh air and repose at times, prevented the return of the paroxysms.

The disease may appear in a less marked but not less obstinate form, in which the catarrhal element is more conspicuous than the nervous. In this form we find the nasal flux and obstruction which, at times, interfere with respiration, and less frequent and also less convulsive sneezing. I have observed this form in middle-aged people who have appeared to me under the mixed influence of the arthritic and lymphatic temperament, with predominance of the latter.

As a type of the form in which the coryza predominates, I will cite the case of a lawyer, belonging to a gouty family, whose father and mother had both suffered from hepatic colics. He himself has been tormented with nervous troubles ever since his early youth; at times by an extremely violent and obstinate facial neuralgia, commencing on the right side, and extending to the left, and accompanied by a twitching, which continued during several years, even in the interval of the neuralgic attacks. At other times the lumbo-abdominal, or the sciatic and crural nerves have been the seat of pain; when the latter, there have been twitching in the feet, cramps and cutaneous anæsthesia of several toes. In one attack of the lumbo-abdominal neuralgia, a transient paralysis of the bladder supervened, and had to be treated by electricity. These attacks, some of which lasted eight or ten months, resisted the whole arsenal of therapeutics, and yielded only to sulphureous mineral waters. The patient presented the additional peculiarity which I have remarked in some other cases, i. e., an eczematous eruption of several weeks' duration was produced by the local application of opiates. Alcohol and camphorated alcohol were perfectly well supported.

I have dwelt at length upon the constitutional condition in order to show in what

diabetic conditions the spasmodic coryza was developed. Before, as well as since the appearance of these nervous affections, the patient is attacked every spring, when he goes to the country, by a coryza, lasting five or six weeks, and tormenting him by its violence and the abundance of the nasolachrymal discharge by which it is accompanied.

I have lately seen two sisters belonging to an arthritic family, the elder of whom, aged about 35, consulted me a year ago for a chronic urticaria of five or six years' standing. This I treated very successfully by small doses of arsenic and alkaline baths very slightly impregnated with sulphur. She returned to me this time on account of a coryza which commenced about the first of May, and gave her the more anxiety inasmuch as her mother had suffered during the past thirty years from the same affection. In the mother's case, this returns regularly in May and continues until the last of August. Her grandfather is exempt, but his brother and his brother's son are both subject to the same disease. There is a history of gout in the family, and the patient herself is subject to sick head-aches, and has loaded urine. Her pharynx is studded with large bright red granulations, which extend even into the posterior nasal fossæ.

[To be continued.]

### CLINIQUE IN AURAL SURGERY

Of Dr. ADAM POLITZER, University Lecturer in the General Hospital, Vienna.

Observed and reported by C. J. BLAKE, M.D.

THE following cases are worthy of notice, the first from the fact of the patient's retaining an almost normal degree of hearing notwithstanding the existence of a serious lesion, and the second from the success of a new method of treatment, employed to preserve the artificial perforation of the tympanum.

I.—Woman, æt. 20, a patient with tuberculosis, in Oppolzer's ward, Vienna General Hospital. The aural examination was made in this case, not from any symptoms of disease of the ear, but in accordance with the general custom in this clinique. With both ears, the watch was heard at a distance of one foot, and the voice, in a whisper, the length of the ward (about 90 feet). Examination of the tympana showed in each a perforation about  $2\frac{1}{2}$ " in length, and situated behind the manubrium mallei; the remainder of the tympanum, with the exception

of a small rim at the periphery, was infiltrated with calcareous deposit. When a child, the patient had severe pain in both ears, followed by a discharge, but no deafness.

Death occurred a few days after this examination, and an autopsy confirmed the observations above described. In the fresh state, the calcareous mass was so firm as to be immovable under a strong pressure, and the deposit had not only impregnated all the layers of the tympanum, but extended above the surface of the mucous membrane into the tympanic cavity, and the malleus was so firmly embedded that no vibration could have been transmitted by it to the other ossicles. The patient was able to bear, and had heard since childhood, inasmuch as the perforation permitted vibrations to pass into the tympanic cavity, and fall directly on the stapes, which was freely movable. The labyrinth was perfectly normal. Had the opening been closed by cicatricial tissue, it would have been necessary to make an artificial perforation in order to permit the passage of vibrations and to give to the patient the degree of hearing, which, as the case stood, she did possess up to the time of her death. The importance of retaining or reproducing a perforation of the tympanum in some, and by no means infrequent diseases of the ear, is illustrated by this as well as by the following case.

II.—On the 22d of October, 1868, Anna P., æt. 48, a native of Vienna, first presented herself at Politzer's clinique. Two years before, according to her account, she was suddenly seized with severe pain in the left ear; the pain lasted for eight days, and was followed by a copious secretion. This also ceased in a few days, but deafness, and the passage of air through the meatus on blowing the nose, continued for some weeks. An application to the meatus, ordered by a physician, did much to diminish the secretion and decidedly improved the hearing; this improvement lasted but about two months, and at the end of that time she began to experience troublesome sensations in the ear, such as loud ringing and rushing sounds.

A marked degree of deafness was observed at the date of admission; this had lasted for a year.

The trouble in the right ear dated from three months before admission; it commenced in the same manner as in the left ear; the pain continued, notwithstanding the appearance of a purulent secretion on the first day, for a period of three weeks.



The secretion and the sensation of a hissing sound in the ear were still present upon admission.

On examination, the left tympanum appeared of a dull-grey color, the short process of the malleus and the folds running outward from it were very sharply marked, and the manubrium mallei drawn inwards and less clearly defined than usual; below the manubrium was a dark and depressed spot of an oval form and about 1" long by  $\frac{3}{4}$ " wide, which was recognized as the cicatrix of a previously existing perforation. The ticking of a watch could be heard only when the watch was brought in contact with the ear, or when it was pressed upon the side of the head; and the voice at no greater distance than 3'. After the injection of air into the Eustachian tube by Politzer's method, the cicatrix was seen to have been forced outwards, and the distance at which the voice was heard was increased by one foot, but it was still necessary to bring the watch in contact with the ear. In the right tympanum, situated below and anteriorly to the manubrium mallei, was a circular perforation of the size of a pin's head, through which a drop of thick pus and a few air-bubbles were forced by the employment of Valsalva's method. After removal of the pus, the watch was heard at a distance of 2", and when pressed upon the head in front of the ear, the voice at a distance of 5 feet. The tuning-fork, placed over the sagittal suture, was most clearly heard in the left ear, because the obstructions to the passage of vibrations from without retained those which were communicated to the tympanic cavity through the medium of the bones of the head. The results of the examination showed the existence of purulent catarrh of the tympanic cavity of the right ear, with perforation of the tympanum. The same process had existed in the left ear, but the purulent secretion from the mucous membrane of the tympanic cavity had ceased more than a year previously, and the perforation in the tympanum had been closed by cicatricial tissue. The fact that a decided improvement in hearing followed the injection of air, favored the supposition that the deafness resulted neither from closure of the Eustachian tube nor from a collection of mucus in the tympanic cavity, but from (old) adhesions between the ossicles and the tympanic walls.

The previous history showed that as long as the patient was able to force air outwards through the meatus, that is to say, as long as the perforation existed, the loss

of hearing on this side was but slight, whereas the closure of the opening was followed by decided deafness. These facts justified the conclusion that either the malleus or incus was attached to the wall of the tympanic cavity by firm bands of connective tissue. So long as the perforation in the tympanum existed, the vibrations could pass through it, and, striking upon the base of the stapes, be communicated to the labyrinth. After the closure of the opening, the vibrations impinging upon the tympanum were no longer communicated to the stapes, because of the resistance of the malleus and incus. The indication for treatment in this case was the removal of the thin cicatrix in the tympanum, in order that vibrations might be admitted to the tympanic cavity through the perforation.

The excision of a portion of the tympanum in certain cases of disease of the ear, was first recommended by Riolan in the 17th century, but from the doubtful results of the operation very little regard was paid to it by the more celebrated surgeons of the time. The first and most important scientific communications concerning the artificial perforation of the tympanum, date from the beginning of the present century; when Astley Cooper and Himly, simultaneously and independently of each other, re-introduced, and, encouraged by the favorable results at first obtained, strongly recommended it. They became convinced, after long trial, of the difficulty of making the artificial opening a permanent one, and finally abandoned the attempt; but in the meantime their favorable reports having reached the continent, the operation was performed in both France and Germany on hundreds of cases, in almost every one of which, however, the first gain proved to be but temporary, for, sooner or later, the opening became closed by cicatricial tissue.\* Pieces of catgut cord, splinters of whalebone, &c., were introduced, and the edges of the perforation touched with caustics, but without favorable result. Bonnafont† in one case introduced a silver canula and allowed it to remain forty-five days, but the closure of the perforation followed its removal. Many instruments have been devised for the purpose of removing a portion of the tympanum. Among the latest are those of Wilde, Toynbee and Gruber, but none of them has succeeded in gaining a

\* Schwartz. Studien und Beobachtungen über die Künstl. Perforation des Trommelfells. Archiv für Ohrenheilkunde. 2 Bd.

† Traité théorique et pratique des Maladies de l'oreille. Paris. 1860.

decidedly favorable result. The operation proposed by Menière, of perforating the tympanum by means of caustics, seems to have been equally unsuccessful, and concerning Sphierotomie we have as yet no definite reports of success. The indications for the operation in the present case induced Dr. Politzer to make the attempt of establishing a permanent artificial perforation by means of a new method, and on Oct. 26th he operated, as follows: A large sized aural speculum having been introduced, and the tympanum illuminated by means of a reflector, an incision was made with a paracentesis knife, through the cicatrix parallel to its long diameter, and a "laminaria-stübchen"\* introduced and allowed to remain for two or three hours, by which time it had sufficiently expanded. Its removal showed a circular opening in the tympanum, through which a hard rubber eyelet (öse), having several rims, was pushed into the tympanic cavity to the depth of  $\frac{1}{2}$ ". The pain resulting from the operation was very slight. Through the opening of the eyelet the mucous membrane covering the promontorium, of a light reddish yellow color, could be plainly seen, and the patient voluntarily declared, not only that she heard better, but that the sensation of noises in the ear had very much diminished. It having been ascertained that the eyelet was firmly fixed, the edges of the perforation having slipped into one of the grooves between the rims, the hearing power was carefully tested. The watch which it had been necessary before the operation to bring in contact with the ear, was now heard at a distance of 9", and the voice at a distance of 40 feet instead of 3 feet.

On the 10th of February I had opportunity of examining the case above described. The eyelet, which is about the diameter of a common steel knitting-needle, projects two lines or more from the tympanum and rests upon the posterior inferior wall of the meatus; it is closely encircled and firmly held in place by the edges of the perforation. The patient does not notice its presence in the least, and is entirely relieved from the previous unpleasant sensations in the ear. The ticking of a watch is heard at the distance of 14", and words spoken in the ordinary tone of voice throughout the length of Oppolzer's ward, a distance of about 90 feet.

The right ear having been treated with intonation, Politzer's method, and the appli-

cation of pulv. aluminis, the purulent exudation ceased, and the perforation became closed by cicatricial tissue about four weeks since. On examination the cicatrix, 2" in diameter, is readily seen, and the hearing power is normal. In this ear the disease having been treated in season, the ossicles retain their normal relations to each other and to the walls of the tympanic cavity.



FIG. 1.



FIG. 2.

The eyelets (made by Leiter of Vienna) are of hard rubber and from 1" to 1 $\frac{1}{2}$ " in length; the longitudinal opening is oval in form and about  $\frac{1}{2}$ " in its longest diameter. On the outer surface are either one (Fig. 1), or two (Fig. 2) grooves. In the outer end is a small transverse opening for the passage of a silk thread, by which the eyelet can be withdrawn in case of its slipping from the pincette during the operation.

The pincette used in introducing the eyelet terminates in two sharp points, which being inserted in the longitudinal opening and then expanded, give a much firmer hold than if the eyelet were grasped from the outside.

#### SINGULAR OBSTETRICAL CASE.

By THOMAS W. PERRY, M.D., Providence, R. I.

THE following case occurred in my practice, Sunday, Dec. 13, 1868. At 1, P.M., was called to an Irish woman in labor with her first child. Moderate pains commenced soon after midnight, but became severe by 7 or 8, A.M. These continued increasing in severity until the termination of the labor. The child was born as I entered the room. I separated the cord, and gave the child into the hands of an attendant. There was a laceration of the scalp, extending from near the top of the right ear across the parietal bone and suture to the opposite parietal bone, making a wound four inches in length; there was a fracture of the right parietal bone in a straight line across, one inch in length; the bone was denuded of its periosteum to the extent of about one half the size of a silver half dollar—the whole making a frightful-looking wound. There was also a laceration of the perineum of the mother, extending down to and back of anus, not rupturing the sphincter ani, but going around and back of the anus, like the half of the letter S. I brought the parts in apposition with four lead sutures, put in deep, tied the knees together, and got a good union.

\* Laminaria, a species of Alga, possessing the expansive properties of pressed sponge, and employed for the same purpose.

Regarding this as a case of great interest, I called Dr. Caswell, who kindly assisted in dressing the wounds. Both mother and child are doing well. The patient was attended by an old woman with whom I have been well acquainted for years, and who is, in my opinion, incapable of malice. She was also surrounded by half a dozen other women, among them the mother of the patient; apparently, there was no possible way for the child to have received this wound from any of the attendants. Neither Dr. Caswell nor myself could discover any spicula of bone from the bones of the pelvis. Suppose this child had been dead born and no person present except the mother, and this wound had been on the head of the child, the question would be, who or what killed the child.

A few nights since, I was called to attend a servant-girl, alone in an attic, and the child was stillborn. Suppose the wound had existed on this child's head; what ought to have been my testimony? Could such a wound be produced by natural process of labor? I have been in the practice of medicine twenty-four years, and during the past twelve years have seen a great deal of midwifery, but have never seen a case resembling this; neither has my partner, Dr. Capron.

March 1, 1869.—I examined the child's head this day. The wound healed by granulation. Several small pieces of bone have exfoliated, leaving a portion of the brain, about the size of a silver half dollar, unprotected by bony covering.

The laceration of the perinæum healed satisfactorily.

of his profession, his diligence in the pursuit of knowledge, his strict attention to duty, and his straightforward and truthful character, gave promise of an honorable and successful career in the practice of medicine, and endeared him to his brother practitioners with whom he was brought in contact.

*Resolved*, That the community have lost a man who had already attained an enviable position in the hearts of his fellow-men, and who by his activity in every good work, his intelligent and generous course in all the movements of the day—political, benevolent, educational and religious—gave assurance of a large influence for good, and of conferring lasting benefits upon the community in which he lived.

*Resolved*, That these resolutions be placed upon the records of this Society, and that a copy be sent with the proceedings of this meeting for publication in the Boston Medical and Surgical Journal; and also that the Secretary furnish a copy to the friends of the deceased.

*A Case of Pericarditis; Abscess between the Heart and Pericardium in a Child.* Dr. Morris Spofford reported the case.

C. B. was a very bright, active boy of two years and three months; so active that he kept the household and the neighborhood in terror lest he should kill or drown himself.

I was called to see him, Dec. 8th. Insensible; in convulsions; eyes rolled up, fixed. Had been thus an hour. Had vomited some hours before, and had thrown up, among other ingesta, some large, unmasterated pieces of fat pork.

I administered submur. hyd. gr. v., with ol. tigllii gtt. i. In half an hour he was sensible, and the next morning was much as usual.

He had a slight return of the convulsions the second day after, which passed off with the application of mustard poultices to his feet and a warm bath.

For a week after, he presented most of the symptoms of remittent fever; being comfortable in the morning, feverish and distressed in the afternoon and evening, showing signs of uneasiness about the head, with a teasing cough and a pulse of about 140.

Suspecting that worms might be at the bottom of the disturbance, I gave him ol. chenopodii gtt. xii. in divided doses, and was gratified next day to see eight large lumbrici as the result. To my disappointment, their evacuation produced no amendment, and after three days the dose was

## Reports of Medical Societies.

ESSEX NORTH DISTRICT MEDICAL SOCIETY.  
G. W. GARLAND, M.D., SECRETARY.

The meeting was held at the house of Dr. Whittemore, of Haverhill, who furnished a sumptuous entertainment.

The following preamble and resolutions were passed:—

Whereas an All-wise Providence has removed from us, by death, Dr. Albert Field Scruton, the following resolutions are adopted by this Society.

*Resolved*, That by the death of Dr. Scruton, almost at the commencement of his professional career, this Society and the medical profession have lost a member who by his thorough preparation for the duties

repeated, but no more worms were discharged.

For a fortnight longer the pulse kept at 140 to 170. The cough became more distressing, the countenance anxious, the eyes wild, with twitchings resembling those of eclampsia about the face (though he retained his senses most of the time to the last, putting out his tongue for m inspection as soon as I entered the room). A large abscess collected just below the patella; the left arm became paralyzed and remained so until his death, which occurred twenty-eight days from the first attack.

Dr. Root very kindly gave me his assistance at the autopsy.

The lungs were generally pale, collapsed, occupying less than half the cavity of the thorax. There was slight pleuritic adhesion in the scapular region of the left side, and to the diaphragm on the right. The right lung was curiously marked with engorged patches in front, extending to the depth of half to three quarters of an inch, out of which issued, on pressure, bloody serum mixed with pus. The cavity of the thorax contained half a pint of bloody serum.

The pericardium was adherent to the heart through its whole extent. At the lower third it could be peeled off with the fingers, as you would peel an orange, leaving a rough, tripe-like surface. In the upper portion the scalpel was required; and, in dissection, an abscess was revealed, enclosing about a fluidrachm of laudable pus. The interior of the heart appeared perfectly healthy, though the whole organ seemed to me somewhat hypertrophied.

Having thus found abundant cause of death, we made no examination of the other organs.

The heart sounds, so far as my ear could distinguish, had been natural throughout, though he was so impatient of the slightest pressure about the thorax that auscultation was not quite satisfactory.

*Retained Placenta.*—Dr. O. S. Lovejoy reported the case.

June 12th, 1864.—Was called to see Mrs. W. Found her in bed, and was informed she had the day previous been delivered (after a six months' pregnancy) of a dead fetus. On inquiry, found the child had not been disposed of, and on examination and from the mother's statements concluded the time was nearly correct. The child had evidently been dead several days, as portions of it had sloughed away. There were no traces of any cord, and the womb had contracted so firmly as to prevent the

entrance of more than two fingers. I could distinctly feel the edge of the placenta within the womb.

I advised with one or two of my professional brethren, and with their opinion came to the conclusion that it would come away if left to itself. The patient recovered health and strength, and in a few days was about her household duties as usual. I was called to see her about once in six weeks during five months and eighteen days (for severe flowing), at the end of which time the placenta passed away. It was enveloped in a well-organized membrane, and was well preserved.

The patient never suffered any inconvenience save at the time of flowing.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Reported by DAVID W. CHEEVER, M.D.

#### REPRODUCTION OF THE TIBIA.

CASE I.—*Excision of the entire Diaphysis and the lower Epiphysis of the Tibia from a girl of 13 years, for Suppurative Periostitis, followed by Regeneration of the Bone, and a useful Limb.* (Service of Dr. CHEEVER.)

July, 1868.—M. F. M., aged 13 years, after passing successively through scarlet fever and measles, was left reduced and feeble, and in April last, three and a half months ago, she began to experience constant and excessive pain in the right leg. Soon, a spontaneous opening occurred, giving exit to thin pus. The disease went on, other openings formed, and the child became much exhausted. On her admission to the Hospital the entire length of the tibia was riddled with sinuses, seven or eight in number, and all leading to denuded bone.

Under ether, an incision was made over the crest of the tibia, from the tubercle of the ligamentum patellæ to the ankle-joint. The entire shaft of the bone was found bare of periosteum, smooth, white and dead. A red and thick periosteal membrane lay on either side, and was attached only to a ridge on the posterior surface of the tibia. Even from this it was separated by the handle of the scalpel. A chain saw was passed under the upper part of the tibia, and the bone sawed just below the junction of the upper epiphysis and the shaft. On raising the shaft from its periosteal bed it was now found that the lowest sinus penetrated the

ankle-joint, and that the lower articular surface of the tibia was seriously eroded and diseased. The internal lateral ligament was divided, the capsular ligament cut across subcutaneously, and the bone dissected out from its attachments to the fibula and the astragalus. Both the latter bones were found healthy. The ankle-joint was thus freely opened. No vessels required ligation, the hæmorrhage being checked with ice-water. The thickened periosteum lined the entire wound, which was left open to granulate.

The leg was laid on its outer side, in a tin splint; and the wound kept wet with liq. sodæ chlorinatæ, diluted with five parts of water.

The entire length of tibia removed was nine inches.

On the second day, suppuration began, and healthy granulation soon followed. The patient's condition was eminently satisfactory, the shock from the operation being trivial, and the relief from the removal of the diseased bone, marked.

On the seventh day the granulations were becoming so exuberant that the sides of the wound were approximated by adhesive strips.

On the eighteenth day, new bone could be traced beneath the whole line of granulations, feeling, under the finger, as thin ice does when we put the foot on it to test its thickness. The new growth of bone kept pace with the healing process, so that when, after eight weeks, the wound had entirely closed over, the new shaft had acquired considerable firmness; and there was also mobility in the ankle-joint.

It was not until five months after the operation that the patient was allowed to put the foot to the ground, and then an apparatus was applied. This had a two-fold object; to lengthen the limb, and to evert the foot.

The leg was three-fourths of an inch shorter than its fellow on the inside, and one-half an inch on the outside, and the ankle and foot inclined to the position of talipes varus. A curious change had taken place in the fibula, one which Ollier says always follows excision of the diaphysis of the tibia.

The fibula was dislocated from its articulation with the upper epiphysis of the tibia, and drawn upwards, so that the head and styloid process of the fibula were one-half inch nearer the anterior superior spine of the ilium, than on the other leg. This change was due to the contraction of both the flexor and extensor muscles, without any resistance from the shaft of the tibia,

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the main column of support. The oblique articulation of the upper end of the fibula also favors dislocation upwards.

It is now eight months since the operation, and improvement has been uninterrupted. An apparatus, made by Dr. Nathaniel Greene, 2 Tremont Temple, Boston, combines the long Sayre's splint with Scarpa's shoe. This is kept firmly applied, and with it, the patient now begins to walk. The new bone is as wide as the old one, above, for a space of four inches, and about as firm. Below, it tapers down, and becomes more flexible. There is a fair mobility in the ankle-joint. The sole comes squarely to the ground, and the foot is turning out.

There seems to be no reason to doubt that a perfect restoration will be effected, and a most useful limb result. There never has been any trouble from the ankle-joint. The patient is growing tall and strong, and moves about continually.

CASE II.—(Service of Dr. BUCKINGHAM.) The patient, a girl of eight years, had suppurative periostitis, and denudation of the diaphysis of the tibia. About five inches of the shaft were dissected out, and the extremities cut through with the chain-saw. Recovery was excellent and continuous. A good limb resulted.

That removals of the diaphysis, and especially both diaphysis and lower epiphysis of the tibia are rare, is proved by the small number of cases, five in all, collected by Ollier, of Lyons, in his great work on the "Regeneration of Bone."\*

These cases are so interesting, that we extract from them at some length.

"We find the most remarkable and most complete reproduction of bone in the tibia. Without recurring to older observers, we shall confine ourselves to the cases in which sub-periosteal operations have been done methodically and designedly. We find various examples of affections of different kinds, which have required operation. Larghi, and Crens-y-Manzo, have operated for chronic ostitis; Langenbeck and Neudörfer for compound fractures; Jambon and Aubert, Holmes and Leutenneur for acute periostitis.

"OBSERVATION XXX.—Sub-periosteal resection of four inches of the lower end of the tibia for suppurative ostitis, with separation of the epiphysis and invasion of the ankle-joint, by Jambon and Aubert, of Mâ-

\* *Traité Experimentale et Clinique de la Régénération des Os, et de la production artificielle du Tissue Osseux.* Par L. Ollier, Chirurgien en Chef de l'Hôtel-Dieu de Lyon. Tome Second. Partie Clinique. Paris: Victor Masson et Fils. 1867.

con. Excellent reproduction of bone; and perfect restoration of the functions of the limb.

"Michael Duvert, 21 years old, had numerous fistulous openings on either side of the leg, giving exit to an abundant suppuration, with severe pain, fever and vigilance. Having been chloroformed, a primary incision along the fibula assured the operator that this bone could be saved. The diseased portion of the tibia was freely uncovered, and the bone divided by a chain-saw four inches above the ankle-joint.

"The inflamed and thickened periosteum was easily detached throughout. The bone, carious in its entire diameter, broke into two fragments, of which the lower, representing the epiphysis, was detached with some difficulty from the bones of the tarsus, which were found quite healthy. The consequences of the operation were very fortunate.

"After a free suppuration, the edges of the wound united by granulations, starting from the bottom. In less than two months the sinuses were closed, and a firm resistance, under pressure, was felt. Under the use of tonics and a full diet the bony repair proceeded rapidly. In less than six months he walked with the aid of one cane; and in ten months he was discharged.

"Four years having passed, the young man has worked constantly at his trade of shoemaking; his gait is easy, and he often walks twenty miles a day. Although there is shortening, there is no deformity. The portion of tibia removed has been entirely reproduced; a slight projection corresponds to the malleolus.

"This operation cannot be classed among removals of a sequestrum. There was no movable bony fragment. The diaphysis had to be sawn, and the epiphysis held to the fibrous tissues which are inserted into it in the normal state.

"OBSERVATION XXXI.—Suppurative periostitis of the whole diaphysis of the tibia, with grave constitutional symptoms. Extraction of the diaphysis before the reossification of the periosteal sheath; by T. Holmes, of London. Recovery—renewal of bone—shortening of the limb.

"The patient was 10 years old. Under chloroform it was found that the tibia was denuded above, below and behind, at every point that the finger could reach. A long incision having been made over the tibia, separation of the periosteum from the posterior border was easily accomplished by a sound guided by the finger. The chain-saw passed under the tibia divided it near

its upper extremity; the section, seized with strong forceps, was detached from the upper epiphysis. The same manœuvre was repeated for the lower end. Thus the entire diaphysis was removed, measuring seven and one-third inches. The limb was placed in a fracture-box. Six weeks later, when consolidation was already advanced, shortening was observed. It was then seen that the head of the fibula was unusually prominent. Efforts to lengthen the limb were made without avail. After six months he was exhibited to the Medical Society, in perfect health, with the limb solid and inflexible. The tibia was replaced by a bony mass of the same form, though thicker, and less regular. There was an inch and a half of shortening. He walked well with a cane.

"OBSERVATION XXXII.—Suppurative periostitis of the diaphysis of the tibia, with severe constitutional symptoms. Removal of the whole diaphysis by Lentenneur. Recovery.

"The patient was 12 years old. Denudation of the tibia the whole length of the shaft. Articulations healthy. Operation the 8th of August. Incisions above and below, the middle third of the skin being left untouched. By a to-and-fro movement the whole diaphysis was extracted. The periosteum was thickened. By the end of September there was ossification under the edges of the incisions above and below; no repair in the middle, where the skin was uncut. Marked shortening of the limb, and partial dislocation of the head of the fibula. In the month of March following, the upper and lower cicatrices were united by an incision, and the periosteum found reduced to a little fibrous cord. This was incised, and gouged, and a seton inserted. Having been retained three weeks, this restored the osteogenic properties of the periosteum, and the upper and lower spurs of bone lengthened, and approached each other. At this time the child left the Hospital.

"OBSERVATION XXXIII.—Sub-periosteal resection of the diaphysis of the tibia for chronic ostitis, to an extent of eight inches, by Larghi. Regeneration of the entire fragment removed.

"John S., 12 years of age, from Refran-core, operated upon Dec 4th, 1853, discharged April 30th, 1854.

"Operation.—The numerous openings from the bone to the skin are clear indications of the extent of the evil which affects this bone; it is actually riddled. Below, the sinuses were very near the joint. However, it was found that the disease did not penetrate into the tibio-tarsal joint. The

tibia is affected throughout its entire length; the disease appeared to stop at the apophyses, which often have a separate vitality from the rest of the bone. The mode of operation was very simple, a straight incision being made over the tibia, from one end to the other, and down to the bone. Two transverse incisions, through the skin only, were made above and below.

"On examining the lower part of the tibia it appeared entirely eroded. Experiencing some difficulty in introducing the chain-saw, I cut away the bone with bone-forceps. The upper part was quite isolated, and removed with the chain-saw. Before commencing the resection I pushed back the periosteum below the ligaments of the ankle, and preserved it entire, without wounding either tendon or nerve. The periosteum was thickened and red.

"Four months and a half after the operation the condition was as follows: the patient was up and moving on the diseased limb. The new tibia was quite hard in its upper three-fourths. The lower fourth, at first soft and flexible, had become firm and unyielding. The new tibia was regular in form, and larger above, than the old one. The patient left the Hospital two weeks later.

"OBSERVATION XXXIV.—Ulcerative osteitis of the tibia. Sub-periosteal resection of the entire diaphysis by Creus y Manso, of Grenada. Complete regeneration of the part removed. Slow recovery, with restoration of the functions of the limb.

"The patient, a boy of fifteen years, entered the Hospital on the 10th of April, 1861, for an acute inflammation of the tibia, with numerous sinuses. Operation on the 10th of June. A long incision was made, parallel to the crest of the tibia, from the tuberosity to within an inch and a half of the ankle-joint—a transverse incision, through the skin, at each extremity. The dissection between the bone and the periosteum was made with the handle of the scalpel. Having reached the posterior edge of the bone, a curved director was passed beneath it, and the chain-saw used. The entire diaphysis was removed. The epiphyses were sound. The wound was bordered by periosteum. There was no hæmorrhage. The portion removed measured seven and a half inches.

"On the 20th, the limb was somewhat stiffened, and examination showed that the work of regeneration had begun.

"The 2d of September, the lower wound was completely cicatrized, and at this point the union of the new bone with the old was

complete. It was not so with the upper part, where a sequestrum of old bone was removed, at this date. It was two years before restoration was perfect.

"Since the final results of these extensive suppurations beneath the periosteum is the necrosis of the bone, the operation done in such cases may resemble the simple extraction of a sequestrum; everything will depend upon the time of interference. If we operate early, while the bone is yet alive and vascular, while the periosteum is still adherent to a portion of the surface, we make, in truth, a resection; but if we wait until the diaphysis is isolated on every side, and holds only by weak medullary adhesions, near its extremities; we do nothing but remove a sequestrum.

"It might be asked whether it were not better to wait until the periosteal ossifications were advanced. We have already recommended expectation for the diaphyses, as long as the joints are not invaded. It is to arrest suppuration, and dépôts of pus, and prevent pyæmia, that it appears reasonable to interfere.

"On consulting statistics we find that resections of the diaphysis of the tibia give a smaller mortality than amputations of the leg. Heyfelder gives the following table:

Cause of Resection.	No. of Cases.	Lived.	Successful.	Partially Successful.	Died.
Fractures . . . .	65	47	43	4	18
False joints . . .	11	11	10	1	0
Deformities . . .	16	15	14	1	1
Curvatures . . .	11	11	11	0	0
Organic Diseases .	22	20	19	1	2
Total . . . .	125	104	97	7	21

"Resection of the bones of the leg, with solution of continuity, gave three-fourths of complete success, and one-fourth of partial results. Five-sixths of those operated on lived. These resections give better results than amputations of the leg, of which one-third die; and in primary amputations, one-half are fatal."

THE DEPTHS OF THE OCEAN.—At a recent meeting of the Academy of Sciences, M. Henri Deville invited the members to visit his laboratory at the Ecole Normal, in order that they might inspect the apparatus erected by M. Cailletet, in which fishes are living under a pressure of 400 atmospheres, proving that the greatest depths of the ocean may be habitable.—*Med. T. & Gaz.*

## Bibliographical Notices.

*Treatise on the Diseases of the Ear, including the Anatomy of the Organ.* By ANTON VON TRÖLTSCHE, M.D., Professor in the University of Würzburg, Bavaria. Translated and Edited by D. B. SR. JOHN ROOSA, A.M., M.D., Clinical Professor, &c. &c. Second American, from the Fourth German Edition. New York: William Wood & Co. 1869. 8vo. Pp. 565.

YEARS ago—how many we do not care to reckon up, but long enough ago to change some of us from youngsters into middle-aged men—Dr. E. H. Clarke read a certain paper before the Boston Society for Medical Observation on Diseases of the Ear. In that paper Dr. Clarke took the ground that much of the diagnosis and treatment of affections of the ear might be mastered by the general practitioner. Thinking that what was true then might possibly be true now, we did not send Dr. von Tröltsch's book to an aurist to test by the illumination of his special knowledge, but scanned it for what information we might obtain from it ourselves. We have been rewarded for our pains, and think we have a good manual for our guidance. If serviceable to us, we think the work must be more so to the physician who does not reside in a city where he can send patients to a skilled aurist in the next street. The descriptions and directions are clear, concise and practical. The translator tells us that although this volume is nominally a revised edition of the former one, it is in fact a new work; and that the original has been greatly improved by a thorough revision, while in many parts it has been entirely re-written. *It has an index*, excellent paper, and fair type.—Ed.

*A Hand-book of Uterine Therapeutics, and of Diseases of Women.* By EDWARD JOHN TILLY, M.D., Member of the Royal College of Physicians, &c. Second American edition, thoroughly revised and amended. New York: D. Appleton & Co. 1869. 8vo. Pp. 345.

In perusing this work, we have been struck with the author's candor and impartiality, and his freedom from extravagance of statement. His work is valuable, not simply as giving a list of surgical and pharmaceutical remedies, but as containing a very clear statement of the hygienic and the moral treatment of women's diseases. Bathing, diet, rest, exercise, travelling,

gymnastics, are spoken of in a way that evinces rare common sense. A very good chapter is added, upon the influence of climates, especially hot climates, in relation to uterine complaints.

We notice one statement which is so clearly an oversight that it hardly detracts from the merit of the book. While due credit is given to Dr. Hodge for inventing "one of the best instruments for maintaining the flexed womb in a right position," the author says that "the instrument should apply gentle pressure as high up as possible against, and *in front of*, the ante-flexed or anteverted womb."

We think the book cannot fail of giving great pleasure to its readers, apart from the satisfaction which a complete work of reference naturally gives. D. F. L.

## Medical and Surgical Journal.

BOSTON: THURSDAY, MARCH 25, 1869.

### CRITICAL REMARKS ON A CLINICAL LECTURE OF PROF. OPOLZER.

WE take great pleasure in placing before our readers the following criticism:—

MR. EDITOR,—At your request, I send you a sketch of the critical remarks that I made at a meeting of the Society for Medical Improvement upon the lecture of Prof. Oppolzer, which appeared in the *JOURNAL* for March 4th—those remarks being founded upon the general impressions I have received from the cases that have occurred here.

The subject of the lecture is one with which we are all quite familiar; numerous specimens of the disease having been shown to the Society at different times, and many of them having been preserved in the College Museum and in our own.

And, in the first place, I would object to the high-sounding term "*Ulcus Rotundum Ventriculi*," as the ulcer is by no means always round, though it is sometimes remarkably so, and always tends more or less to that form. The term "*perforating ulcer*," which appears once in O.'s lecture, and is applied to ulcers that do not perforate as well as to those that do, if I am not mistaken, is also objectionable, as death is sometimes caused by hæmorrhage. The ulcer-



also, may cicatrize, or it may be found in patients who have died of some other disease, and in whom it may never have been suspected. The term "chronic ulcer" is simple and very expressive; and, as it is sufficiently common, it would be well if it were generally adopted.

A large portion of the lecture is taken up with the symptoms of the disease; and epigastric pain, heart-burn and cardialgia, with other symptoms, are well described. It is to be hoped, however, that most cases of cardialgia are not to be referred to it, as Oppolzer seems to think may be the case. "The nutrition," he says, "is often but slightly affected, provided there is no hæmorrhage, and cardialgia does not set in during the night." This last remark certainly requires some explanation.

In two different places he speaks of the "continuous" character of the pain in case of perforation; but this would be a very mild term to apply to most of the cases that have been observed here. On the other hand, the distention of the abdomen, as he has seen the disease when this accident occurs, is much greater, I think, than it has been in our cases. In connection with this remark, however, I would mention a case that happened to be reported to me on the day after I made these remarks to the Society, by Dr. Chas. E. Hosmer, of Waltham. Dr. H. brought to me a fine specimen of chronic ulcer of the stomach that he had recently removed from one of his patients who died of perforation, and who lived for the very unusual period of nineteen days after the accident occurred. In this case, of which a report will be published, the distention after the ninth day was very great, though before that time it was only moderate. To the symptoms of collapse in these cases, Oppolzer makes no reference.

In regard to the size of the stomach, he remarks that it varies; but that, when the ulcer is close to the pylorus, this last contracts, and may cause a dilatation of that organ. I once found the dilatation perfectly enormous when the ulcer was situated upon the pylorus; but, excepting that case, I have never, I think, met with one in

which the size of the organ was in any way remarkable. And, neither, have I seen the slightest appearance of an hour-glass contraction, to which Oppolzer refers, when the ulcer is in the middle of the small curvature. He speaks of the continual contraction of the organ as the ulcer extends; but in ulcers of the largest size, I have seen nothing of the kind. As to a relaxation of the muscular fibres and consequent dilatation of the organ, which is due, as he says, to "catarrh," I should say that the mucous membrane was very generally quite healthy, however we might expect it to be otherwise.

Oppolzer remarks that "most cases of *ulcus rotundum ventriculi*, like chronic maladies of the stomach in general, are combined with tuberculosis pulmonum and phthisis." I should always very much prefer to have my observations agree with and help to strengthen those of others, rather than the contrary; but, with one exception, this statement is certainly utterly at variance with what has been observed here.

Healing by cicatrization is spoken of, and is generally remarked upon by authors as sufficiently common; but I have never happened to see more than two or three times a cicatrix that I thought might be caused by the healing of a chronic ulcer.

In case of perforation, Oppolzer states that the liver is pressed back by the air in the peritoneal cavity, and that there is consequently a resonance on percussion in the region of that organ. In Dr. H.'s case, above referred to, the liver was pushed very far upward and backward; but I do not remember to have seen such a displacement in any dissection, nor have I heard any such reported here. The distention was very great in Dr. H.'s case, as already stated; but how much of it was due to the air in the peritoneal cavity, and how much to a large effusion of pus and to the distention of the intestine may be a question. The peritoneum is not distended by rupture of the stomach, as the pleura is by rupture of the lungs.

When an ulcer forms it seems now to be supposed that the particles of the affected tissue lose their vitality and are cast off;

but it is certainly a great misapplication of an old and well established term to call this process "necrosis."\*

The treatment prescribed for the disease is certainly remarkable. "Sour milk is the chief point; for the cardialgia, give magistery of bismuth (sub-nitrate), with acetate of morphia, or, if the patient is inclined to be constipated, with belladonna." This last is probably given with a view to relax the muscular coat of the intestine, but we should hardly like to give enough of the drug to produce such a marked constitutional effect, when we have so many perfectly safe laxatives at our command. If the "magistery of bismuth" is nothing more than the sub-nitrate, with which the Germans as well as ourselves are probably so familiar, why should not he have used that term, in his own language, instead of one that savors so strongly of the old days of alchemy? The brackets are from the original, and not the translator's. In regard to the term "pills" of ice, which, as Dr. L. tells me, is translated literally from the German, it certainly is no improvement upon the "small bits of ice" which we are in the habit of giving, as well as Oppolzer, in cases of vomiting.

When peritonitis occurs (from perforation, of course), local bleeding and cold applications to the epigastrium should be resorted to without delay. If Oppolzer imagines that there is the slightest chance for his patient under such circumstances, let him by all means use active treatment; but, here, I believe, it is considered as so nearly certain that the patient will die, that any curative measures that in any way tend to his discomfort, are looked upon as nothing less than cruel. We give opiates, in some form, as our principal active means of treatment; and it is particularly to be remarked that Oppolzer does not allude to the use of them when the distressing accident occurs.

"For heart-burn, bicarbonate of soda, chalk, magnesia, and conchæ præparatæ; when the last is used, the patients often

have disagreeable sensations in the stomach, as the article is entirely composed of minute pointed fragments;" and well they may, when he uses so coarse a remedy. He then goes on to say "(Dog's dung has been employed for the same purpose)." The parentheses are from the German; but what they signify does not appear, unless they may serve as a partial cover for the indecency of the idea. It is well known that dogs are in the habit of chewing up bones, and discharging the fragments after the nutrient matter has been extracted; but what particular advantage the phosphate and carb. of lime can have after having been squeezed through a dog's intestines, over the delicately prepared sub-acids of modern pharmacy, is not to be conceived. No one, who had a proper sense of decency in his nature, could prescribe for a fellow-creature so filthy an article as the one referred to; and it is to be hoped that when he does order it for his patients he throws over it the mantle of a foreign language, in which throughout his lecture he indulges so freely.

It was remarked at the meeting of the society that these lectures are probably reported by some attendant upon them, and that Oppolzer ought not to be held responsible. But the editor of so respectable a Journal as the *Allg. Med. Zeitung* must know who he employs, and we cannot suppose that he would accept a report from any but a competent person. It seems as if it could not be very far out of the way; and, in conclusion, I would say that if the present is a fair specimen of the lectures of this very distinguished Professor in what I believe is considered as the very best school for clinical instruction in Europe, I think that, so far as clinical medicine goes, the young men who go to Vienna might as well stay at home and save their money.

Yours very truly,

J. B. S. JACKSON.

March 10, 1869.

NOTES FROM THE GAZETTE HEBDOMADAIRE DE MEDECINE ET DE CHIRURGIE.

SINCE 1862, says this journal, the attention of Dr. Bowditch, of Boston, has been directed to soil-moisture as a cause of phthi-

\* *Necrosing*, we are informed by the translator, is the German word used by Oppolzer. To translate it literally we should have to found a verb, as we understand the matter, on the term *necrosis*. The participle of that verb would be *necrosing*.—Ed.

sis; a close relation being established between the meteorological condition and the disease. At the same time, says the *Gazette*, Dr. Buchanan arrived at the same conclusions in England, without being cognizant of the labors of his American cotemporary. We have already claimed for Boston the priority in this matter.

The English Government have just sent two commissioners to India—Drs. Cunningham and Lewis—to study the causes of cholera at its very source.

*A Pathological Survey of Mexico.*—Inflammations of the respiratory apparatus cause a little more than a tenth part of the deaths. M. Poindet (in his book entitled *Le Mexique au point de vue médico-chirurgical*) thinks the rarefaction of the air is a predisposing cause. Abscess of the liver is common. Marsh miasmata produce a considerable number of deaths; but mortality is obviously not a reliable indication of the frequency of the malady. Deaths by dysentery are in the proportion of about 69 to 1000 deaths from all causes. Congestion and hæmorrhagic flux are frequent, principally in autumn. Typhoid fever presents the same characteristics as in France. Finally, the yellow fever does not show itself on the elevated table lands.

*Académie des Sciences. Experiments in Inoculation, demonstrating that Malignant Pustule and the Blood of an Animal affected with Anthrax do not lose by Desiccation their virulent Property.* By M. RAIMBERT.—In a communication by M. Bouley to the Academy the 18th of February, upon the *mal des montagnes*, which he identifies with anthrax, I read, says M. R., the following conclusion:—That the blood of a subject affected with anthrax, which contains bacterids in great quantity, loses its virulent property by desiccation, and does not recover it by dilution in water, although the bacterids remain quite visible. This conclusion, M. Raimbert goes on to say, is entirely opposed to the results he has obtained by inoculation performed with fragments of malignant pustule and with dried blood from an animal having anthrax. The cases and experiments referred to by their reporter, prove, in his opinion, that a fragment of malignant pustule, dried, at least upon the surface,

inoculated into a rabbit; and also the blood of an animal tainted with anthrax, and containing bacterids, inoculated into a rabbit or a guinea-pig (the blood having been evaporated to dryness, or first dried and then diluted with water), are fatal to these animals.

Langerhaus has been experimenting on the nerves of the skin, with reference to their terminations, and has arrived at results analogous to those of Cohnheim as to the nerves of the cornea. Like Cohnheim, Langerhaus has made use of chloride of gold, which gives a reddish color to the nerves. The white nervous filaments, according to him, pass through the cutis, and terminate in a special corpuscle situated in the epithelium, which corpuscle gives rise to slender filaments. The ultimate termination is thus in the midst of the epidermis. Langerhaus insists on the accuracy of his investigations, declaring that the corpuscles cannot be corpuscles of connective tissue, nor epithelial elements; but are formations of nerve structure. In the new-born child, he adds, these terminal corpuscles form a sort of regular layer, the elements of which are separated by two, three or six epithelial cells. In a millimetre square, five hundred (500) could be counted. At the extremity of a papilla there were found as many as ten. Such richness of distribution he thought indicated an important physiological function, which should perhaps be referred to the domain of the common sensibility.

Prof. Krause explains the *cause of the pain in anal fissure*, by the anatomical distribution of the nerves in that region. He has found that a great number of nervous filaments with terminal corpuscles are distributed to the long papillæ of the columns of Morgagni.

In the *Archives de Physiologie* we find an account of experiments on the *Influence of Irritation of the Cutaneous Nerves upon the Temperature of the Limbs*; by Drs. Brown-Séquard and J. S. Lombard.

One of the experimenters being seated and keeping perfectly quiet, in a chamber the temperature of which remained constantly the same, subjected first one limb and then another to the irritation of pinching, while

the temperature of the limb experimented on, or of that on the opposite side, was observed by means of the thermo-electric pile.

The results of the experiments are thus summed up :

1. The irritation of the skin of a limb by pinching is soon followed by elevation of temperature. 2. This irritation produces in the corresponding limb on the opposite side a diminution of temperature. 3. The pinching of the skin of one of the inferior extremities often produces a change of temperature in both upper extremities—diminution in that of the limb on the opposite side, elevation in that of the corresponding side. 4. All these phenomena of diminution or of exaltation of temperature are in all probability effects of vascular contraction or dilatation, brought about by reflex action.

#### NOTES FROM THE UNION MEDICALE.

*Tardieu on Poisonous Coloring Matters of Textile Fabrics.*—M. Tardieu, in a note supplementary to his memoir on poisoning by coralline, says that without mentioning the mineral reds, vermilion, and other dyes which are not in question, the principal organic colors which may be fixed upon textile fabrics are six in number, viz., madder, cochineal, murexide (derived from murex), saffron (*carthamus*), aniline red, coralline. The three first can be fixed on cloth only by means of metallic oxides called mordants. Thus the madder red is grounded upon alum, or alum and tin; cochineal red upon tin; murexide red upon oxide of mercury or lead, often dangerous to the workmen who handle it. The three last of the list of six coloring agents are fixed upon tissues without any mordant. But it is important to remark, he says, that the red of aniline is now prepared exclusively by means of arsenious acids; and that the commercial aniline reds contain always a certain quantity of arsenic. It is to this poison, he adds, that are to be attributed the symptoms presented by certain workmen employed in the manufacture of aniline red. M. Tardieu was informed by M. Bidard, of Rouen, that coralline had been employed in dyeing calico, the agent having been rendered soluble in water. The fabric, however, not

being worn next the skin, there was no danger from it.

At the Société Médicale des Hôpitaux, Dr. Desnos read a case of hæmorrhagic effusion into the medulla oblongata, attended with albuminuria and with the symptoms of uræmia. At the autopsy, a collection of blood was found in the medulla oblongata of the size of a hazle-nut. Besides the fluid blood, there was a clot of the size of a pea. The kidneys and all the other organs were sound, except that the lungs were congested.

M. Mattei points out a cause of retention of urine in females after delivery, which he thinks consists in a wrinkling of the urethra. That canal being put upon the stretch during parturition, is relaxed after delivery, and easily becomes folded upon itself. Catheterism performed once or twice is all that is necessary to remove the difficulty. If that operation be required for a long time, it shows that there is not merely a wrinkling of the urethra, nor a contusion of it, nor inertia of the bladder, but paralysis of the latter organ.

Among the authorities who have spoken favorably of bromide of potassium in large doses for epilepsy, the *Bulletin Générale de Thérapeutique* mentions Sir Charles Locock, Dr. Radcliffe, Dr. Williams (of the Northampton Asylum), Dr. Robert McDonnell; MM. Brown-Séquard, Blache, Bazin, J. Besnier, A. Voisin and Fabret. M. A. Voisin gives from 4 to 11.50 grammes per day, the last figure being reached by gradual increase. He says the drug is of no use in epilepsy connected with cerebral lesion.

**ORIGIN OF THE ROUND ULCER OF THE STOMACH.**—This is commonly attributed to the occlusion of an artery of the stomach, and the perishing of a certain portion of tissue in consequence. M. Roth (in *Virchow's Archiv*, 45 B. 2 H. 68) describes numerous experiments, made chiefly upon rabbits, in which arterial branches in the walls of the stomach were tied. The mucous membrane was found normal, two or three days after the operation, in every instance except where a portion of it had accidentally been included within the suture. In other cases fragments of nitrate of silver (some as large

as 0.3 grammes) were administered in pills; and in every one of this series of experiments ulcerations were found, situated on the lesser curve and the posterior wall, mostly round, sometimes oblong, and very variable in size. Many superficial erosions also were found. The author infers that the round ulcer, in man, may have a similar origin.—*Allg. Med. Central Ztg.*

D. F. L.

The following paragraph is from among the "notes and queries" of the *London Medical Times and Gazette* for Feb. 20th, 1869. The extract referred to as in our issue of Jan. 7th, is credited to the *Dental Cosmos*. Will that Journal furnish the information desired? We suppose the querist may wish to know how many drops of the mixture are to be applied at each session.

**IODINE AND ACONITE IN PERIODONTITIS.**—Professor Abbott writes:—The best remedy, and the one that works the most conveniently for periodontitis, I have ever used, is a mixture of equal parts of official tincture of iodine and tincture of aconite root applied to the gum around the roots of the tooth with a camel's hair brush, or a portion of cotton-wool at the end of a stick. I have been using it for a year, and have not found it fail. I apply it, in the early stages of the inflammation, once in the twenty-four hours, and in very severe cases twice.—*Boston Journal*, January 7.—(*Quære*: What dose of aconite is administered?)

From the annual report of the Resident Physician of the Massachusetts General Hospital, for the year 1868, we learn that the number of patients in the Hospital, January 1, 1868, was 108—paying, 39; free, 69. Admitted to the Hospital from Jan. 1, 1868, to Jan. 1, 1869: patients paying board, 463—males, 333; females, 130. Patients paying part of the time, 31—males, 22; females, 9. Patients entirely free, 771—males, 445; females, 326. Total, 1265—males, 800; females, 465. Discharged during the year: Well, 757—males, 458; females, 299. Much relieved, 103—males, 61; females, 42. Relieved, 155—males, 98; females, 57. Not relieved, 64—males, 37; females, 27. Not treated, 71—males, 50; females, 21. Dead, 85—males 67; females, 18. Insane and eloped, 11—males, 7; females, 4. Total 1246—males, 778; females, 468. Number of patients remaining Dec. 31, 1868, 127—males, 76; females, 51.

Paying, 31; free, 96. Medical, 66; Surgical, 61. Twenty-three per cent. of the free patients were female domestics; twenty-two per cent. were laborers; fifteen per cent. were mechanics; and seventeen per cent. were children.

The average time of paying patients was 3 weeks; and that of free patients,  $3\frac{2}{3}$  weeks. The proportion of ward beds occupied by free patients was about  $\frac{2}{3}$ ; by paying patients, about  $\frac{1}{3}$ . About twenty per cent. of the paying patients occupied private rooms.

**Out-patients.**—Five thousand two hundred and sixty-four persons have been treated as out-patients, receiving advice, medicine, surgical attendance and treatment.

**THE FUNCTION OF THE BILE UNKNOWN.**—Dr. Letheby (*Chemical News*), in an article on "Food," states that the true function of the bile is unknown; perhaps it aids in neutralizing the acid peptones from the stomach; perhaps, also, in emulsifying fat; and it may be that it helps the digestion of starchy foods. Lehmann thinks it is a rich residuum from the manufacture of blood globules in the liver, and that it is secreted into the alimentary canal, only to be reabsorbed into the blood. Mr. Lee, also, is of opinion, from his examination of the fetal liver, that it separates a highly nutritious substance from the fetal blood, which is elaborated in the intestines. Its functions, however, are manifestly obscure.

The bile is a complex liquid, consisting of biliary acid (taurocholic, glycocholic, &c.) in combination with soda. Its reaction is slightly alkaline, and it contains about fourteen per cent. of solid matter, not less than twelve of which are organic.—*Medical Record*.

From a notice in the *Dublin Medical Press and Circular* of Dr. Murchison's new book on Diseases of the Liver, &c., we extract the following:—

"Take, for instance, the question of the action of mercury on which Dr. Hughes Bennett has been engaged in experiments for the British Medical Association, and whose conclusions thereon so surprised the great body of practitioners. Dr. Murchison has evidently carefully weighed the evidence, and he has come to a conclusion which is likely at present to receive the assent of the majority. He thinks that "mercury and allied purgatives probably produce bilious stools by irritating the upper part of the bowel, and sweeping on the

bile before there is time for its absorption." He recognizes the fact that articles of food frequently give rise to similar effects, and thinks that their action is precisely similar. From this we might suppose that other purgatives should be substituted more frequently than they are, and assuredly this view supports the American preference for podophyllin, or, as it is called sometimes in the States, "vegetable calomel." We could certainly say much in its favor. Dr. Murchison considers calomel of great use in congestion of the liver, but if it increased the secretion of the bile, it would have an injurious effect. He thinks it likely that "irritation of the duodenum by purgatives, may be reflected to the gall-bladder, and cause it to contract, and that the evacuation of the viscus may account in part for this increased quantity of bile in the stools." Dr. Murchison's is a handy sized volume. The former half treats of enlargements of the liver, under the division of painful and painless enlargements. The latter includes gall-stones, jaundice, hepatic pain, contractions, and abdominal dropsy. The cases upon which the lectures are founded are well selected and carefully related. Their study is likely to lead to more careful diagnosis and treatment."

EXTRACTS from a Clinical Lecture on the Treatment of Carbuncle. By JAMES PAGET, D.C.L., F.R.S., Surgeon to St. Bartholomew's Hospital:—

"First, with regard to the incisions made in carbuncles. The ordinary plan, still recommended by some, is, as soon as a carbuncle is seen, to make two incisions crucially from border to border. It is said that they must go even beyond the edges of the carbuncle into the adjacent healthy textures. I have not followed that method of practice very often, but I have followed it quite often enough to be sure that it does not produce the effects which are commonly assigned to it. It is commonly said that if you will thus make crucial incisions into a carbuncle, you will prevent it spreading. If you can find a carbuncle two or three days old, and cut it right across in both directions, I think it very likely that you will prevent it spreading. But even therein is a fallacy; for there is no sign by which, on looking at a commencing carbuncle, you can tell whether it will spread or not, whether it will have a diameter of an inch, or of three, six, or ten inches. . . .

"Then it is said that carbuncles are relieved of their pain if they are thus very

freely cut. Here, again, however, is only a partial truth. A carbuncle of two or three days' standing, which is hard, tense, and brawny, is very painful; and cutting it will relieve, in many cases, a considerable portion of the pain. But after this, when the carbuncle begins to soften, and when pustules begin to form upon its surface, and pus in its interior, it ceases to be painful of its own accord, and without incisions. Thus there are two distinct stages of carbuncle in reference to the pain; the early stage, when it is hard and still spreading, and is generally intensely painful, and the latter stage, in which that pain nearly ceases. A carbuncle divided in the first stage, in the first two or three days of its existence, may be relieved of some of its pain; if divided in the later stage, what little pain may exist is altogether unaffected by the cutting. And even cut as you may, you cannot always put aside the extreme pain that a carbuncle sometimes has, even to its later time.

The third point is stated thus, that by the incision of carbuncles you accelerate their healing, giving facility for the exit of sloughs. But herein is the greatest fallacy of all. When the cutting of carbuncles was more customary in this Hospital than it is now, when I did not cut them, and some of my colleagues did, I used to be able to compare the progress of cases cut and of cases uncut, and time after time it was evident that the cases uncut healed more readily than those cut. . . . Indeed, it by no means always follows that the whole carbuncle, or its whole base, sloughs. Carbuncles, if not divided, not unfrequently only suppurate about their centres, and slough only in their central parts, and the borders merely clear up by the softening and dispersion of the inflammatory products in them. In every case of that kind you save greatly the amount of healing which has to be gone through. Nay, in some cases carbuncles completely abort. . . .

On these three points, which are the grounds that have been assigned as reasons for cutting carbuncles, I have now given you the evidence on which I have ceased from the practice. I fully believe that crucial incisions do not prevent extension; that it is only a limited set of cases in which the incisions diminish pain; and that with regard to the time that is occupied in healing with or without incisions, the healing without incisions is very clearly and certainly a great deal the quicker.

The kind of incisions that I have been speaking of is the old plan of crucial inci-

sions. Another method which I have occasionally tried, but of which I can only state the same general results, is that of subcutaneous incision. This has been supposed to have the same general effect as the other; and I think that the same general conclusions may be drawn respecting it; that it is a measure unnecessary in the treatment of carbuncle, and that it retards rather than hastens the healing."—*Medical News and Library*.

EXTRACTS from a Valedictory Address delivered at the Medical Department of the Georgetown (D. C.) College, March, 1869, by FRANK COWAN, M.D., author of the "Runic Inscription," &c. :—

"LADIES AND—to wed kindred Saxon-English words—LORDS, LASSIES, AND LADS,—Once upon a time the greatest man and the greatest ape were very neighborly—a flea might have hopped from the one to the other and found his brothers on each. This greatest man then did all his work himself—was, as far as crafts then went, a jack at all. He killed the bear, the elk, and other deer, himself; eared the earth to earn his bread, himself; wove, of willow-withes, of rush, and thread, his hurdles, mats, and cloth, himself; smoothed and shaped, of wood and stone, of shell and bone, his bows, knives, spears, and other weapons, himself; wrought, of skins, of bark and boughs, his boats and boathes, his hovels, and houses, himself; and he likewise HEALED himself—that is, made himself *hale* or *whole*—when sick and sore.

"Here writhes a wry-necked wight, wrecked and wretched, in wrath wreaking on himself the wrongs wrought by himself, now wringing and wrenching his wrists, now wrangling and wrestling with a wraith wreathed with wrack—lo! and a dwarf leaps from a poppy-head and soothes to a sleep, sound and sweet, the stark and staring madman! Here lies a wounded warrior, his shoulder shot and shattered, riving the very welkin with his shrieks—lo! and a foggy elf floats from a bottle and breathes a mist which melts the ruthless rack of Pain into a downy bed on the bosom of Ease! Here swells a seething sea of small-pox, its loathsome waves welling up till they overwhelm, wash, and wear away the loftiest land of life—lo! and a tiny dwarf, from the teat of a cow, swallows the fiery flood, leaving barely a drop to blister the arm of a babe!"

CAST IRON vs. SHEET IRON FOR STOVES.—General Morin related some comparative

experiments which had been performed by M. Carret, and which, he said, corroborate his theory. Thus, after having remained during one full hour in a room heated to 40° (centigrade) by means of a sheet-iron stove, M. Carret perspired abundantly, got a good appetite, but felt no sickness whatever; he had obtained the same result with an earthenware stove; but the experiment, when performed during only one-half hour with a cast-iron stove, had brought on intense headache and sickness.—*London Lancet*.

HYDROGENIUM—A NEW METAL.—Professor Graham, Master of the Mint, has just read before the Royal Society (January 7, 1869) a very remarkable memoir "On the Relation of Hydrogen to Palladium," in which he brings forward strong evidence in favor of the metallic nature of hydrogen. The view is by no means original, but no such strong evidence in its favor has ever previously been adduced.

Professor Graham gives the name *hydrogenium* to the assumed highly volatile metal of which he regards hydrogen gas as the vapor. The chemical properties of hydrogenium differ from those of ordinary hydrogen. The palladium alloy, which contains hydrogenium, precipitates mercury and calomel from a solution of chloride of mercury (corrosive sublimate) without any disengagement of hydrogen—that is, hydrogenium decomposes chloride of mercury, while hydrogen does not. Moreover, hydrogenium unites with chlorine and iodine in the dark, reduces per-salts of iron and some other metals into proto-salts, and has considerable deoxidizing powers, and, in short, seems to be the active form of hydrogen, as ozone is of oxygen.

"The general conclusions," says Professor Graham, "which appear to flow from this inquiry are that in palladium fully charged with hydrogen, there exists a compound of palladium and hydrogen which may approach to equal equivalents; that both substances are solid, metallic, and of a white aspect; that the alloy contains about twenty volumes of palladium united with one volume of hydrogenium; and that the density of the latter is about 2, a little higher than magnesium (which is 1.743), to which hydrogenium may be supposed to bear some analogy; that hydrogenium has a certain amount of tenacity, and possesses the electrical conductivity of a metal; and, finally, that hydrogenium takes its place amongst magnetic metals."—*Medical Times and Gazette*.

## Medical Miscellany.

**A VALUABLE COLLECTION FOR SALE.**—A large and superior collection of original illustrations by the late Prof. Türek, of Vienna, comprising 777 water-color paintings of life size, and illustrating the diseases of the larynx and pharynx, as seen with the laryngoscope or from pathological specimens, is for sale by the family of the Professor. The paintings were executed by Drs. Ellfinger and Heitzmann in the first style of the art. A history of each case is annexed. Will not some member of the profession so far render himself a benefactor of his brethren as to purchase the collection, that we may have it among us. F. H. B.

From the Report of John W. Sawyer, M.D., Superintendent of the Butler Hospital for the Insane, Providence, R. I., we learn that during the year 1868 there were admitted 80; discharged, 61; whole number under care, 211; recovered, 26; improved, 15; unimproved, 12; died, 8; remaining at the end of the year, 150. From 1848 to 1868 inclusive, there were admitted 1,380; discharged, 1,230; recovered, 465; improved, 342; unimproved, 127; died, 290.

The subject of localization of faculty in particular parts of the brain was again discussed at the Medical Society of London on Monday night in the debate on a very able paper read by Dr. Day, of Stafford, "On Injuries of the Brain and their Consequences." Dr. Day has passed most previous writers in pronouncing against the localization hypothesis, and certainly he adduced cases and facts which, in our present knowledge, are utterly irreconcilable with that hypothesis. He brought forward, for instance, the history of a man who for a long time carried the breech of a gun, a piece of iron weighing two ounces, in the brain, but who showed no indications of loss of any special faculty. Dr. Boyd adduced other examples in support of Dr. Day's view of the possibility of disorganization of portions of brain without symptoms; while Dr. Thudichum, point-blank, disputed the proposition. These extreme differences of opinion show how much we require a sounder physical knowledge of the brain and its functions.—*Med. Times & Gaz.*

**ACCOUNT OF A FAMILY WITH WENS ON THE HEAD.** By PAUL F. EVE, M.D., Professor of Surgery, Missouri Medical College.—I propose to report some striking facts regarding atheromatous tumors under the scalp, which I met with in a family near Augusta, Ga., while stationed there during the war:—

1. Their gregarious or multiple character—a dozen having been removed from one head.
2. Their hereditary tendency—a grandmother, mother, son (my patient), two sisters and three daughters, all having presented these wens on the head.
3. The great size of some of them—one was nearly as large as a small orange or common apple.
4. The conversion of the contents of some of them into a puriform fluid.

*St. Louis Medical Reporter.*

**A SINGULAR DISEASE.**—Before the London Obstetrical Society, Mr. Heckford recently exhibited the generative organs of a child aged ten months, in which the vagina was enormously dilated, and occupied by villous growths of a medullary character. The rectum, bladder and urethra were normal. The os uteri opened into the upper wall of the vaginal sac. The disease had lasted for about four months, and the child died shortly after its admission into the East London Children's Hospital.—*Medical Record.*

At the last annual meeting of the Medical Society of the State of New York, Dr. March read a paper, entitled Spontaneous Lithotomy, giving an account of a case in which a large-sized vesical calculus was discharged through an ulceration in the perinaeum.—*Ibid.*

**HISTORY OF VACCINATION.**—The *Pall Mall Gazette* states that the Russian Government has offered a prize of 3,000 roubles (£400) for the best history of vaccination, by way of celebrating the hundredth anniversary of the introduction of that practice into Russia by the Empress Catherine II. The prize is open to all European competitors, and the history may be written in any modern European language.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATUM.**—On page 115, 1st column, 4th line, omit "which" and insert after "believed" the words *Dr. Charles's instrument.*

**TO CORRESPONDENTS.**—The following communications have been received:—Case of Fibro-plastic Tumor of the Base of the Skull—Cases of Intestinal Calculus.

**PAMPHLETS RECEIVED.**—Fourteenth Annual Report of the Board of Trustees and Officers of the Southern Ohio Lunatic Asylum for the year 1868.

**DEATHS IN BOSTON** for the week ending Saturday noon, March 20th, 114. Males, 59—Females, 55.—Accident, 1—aneurism, 1—apoplexy, 1—disease of the brain, 4—inflammation of the brain, 2—bronchitis, 2—burns, 1—cancer, 2—cholera morbus, 1—consumption, 20—convulsions, 2—croup, 5—cyanosis, 1—diarrhea, 1—diphtheria, 1—dropsy of the brain, 5—dysentery, 1—erysipelas, 1—scarlet fever, 7—typhoid fever, 2—gastritis, 2—disease of the heart, 5—infantile disease, 1—influenza, 1—intemperance, 1—congestion of the lungs, 3—inflammation of the lungs, 11—marasmus, 3—old age, 7—paralysis, 2—peritonitis, 1—pleurisy, 1—premature birth, 2—puerperal disease, 2—teething, 1—trismus nascentium, 1—unknown, 9.

Under 5 years of age, 39—between 5 and 20 years, 15—between 20 and 40 years, 24—between 40 and 60 years, 15—above 60 years, 21. Born in the United States, 74—Ireland, 29—other places, 11.



THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, APRIL 1, 1869.

[VOL. III.—No. 9.]

## Original Communications.

### A CASE OF FIBRO-PLASTIC TUMOR OF THE BASE OF THE SKULL, ASSOCIATED WITH LEUCOCYTHEMIC CHANGES IN THE BLOOD AND SEVERAL GLANDULAR ORGANISMS.

By J. B. TREADWELL, M.D., of Boston.

L. G., æt. 22; height 5 feet 4 inches; weight in health 140 lbs. Sanguineo-lymphatic temperament; fair complexion; brown hair. Always well until commencement of present disease. Mother died of pulmonary phthisis at 49, and one sister of the same disease at 21; otherwise no hereditary disease in family. Married at 19, and gave birth to a child in 1866, which is now healthy and robust; became pregnant again in July, 1867, and aborted in September of the same year. Menses appeared only twice subsequently.

In June, 1867, a small, hard tumor was noticed in the right parotid region, which grew slowly for one year. Subsequently several smaller ones appeared, some of them extending along the submaxillary region. Six months after the appearance of the primary tumor on the right side, a similar one appeared in the same locality on the left side, which in turn was followed by several smaller ones in and about the parotid and submaxillary regions of the same side. She suffered pretty constant and severe pain in and about the original tumor of the right side from the time of its appearance until two or three months previous to the time of her decease. There was never any severe pain in the left side.

Three months since three or four small patches of ulceration appeared in the skin about the right temporal region, and continued in this condition until her death. These ulcerations, however, were very superficial. About two months since the right eye became unnaturally prominent and continued so for some time, when a small discharge of pus took place from two openings—one just under the supra-orbital ridge,

and another just over the inferior border of the orbit—after which the eye resumed its natural position and appearance. About the time the eye became protuberant it also lost the power of vision and motion, and paralysis of the upper lid also occurred. There was no anæsthesia of the globe of the eye or integuments of the head and face. Neither was there any strabismus at any time. All the other special senses were perfect, with the exception of that of smell, which was somewhat impaired. About this time she also became subject to mild clonic convulsions, which generally came on while she was sleeping, and lasted from five to thirty minutes, and occurred several times during the day and night. These continued until the time of her death.

During the last two or three months of her life respiration was performed entirely through the mouth, the nasal passages being obstructed.

During the first six or eight months of the disease the general health suffered comparatively little; subsequently it gave way, and during the last six months of her life she was confined to the house, and for the last two or three months to her bed. She became extremely emaciated during this time.

The appetite was good and digestion well performed throughout the entire duration of the disease, although for some time previous to her death there was some trouble in taking food, owing to a partial closure of the jaws and difficulty of deglutition, both being apparently produced by the pressure of the enlarged glands. There was no diarrhoea at any time. She was patient and cheerful, thinking until a short time before her death that she might recover. She continued to fail, however, becoming more and more prostrated, and died February 23d, becoming comatose three hours previous to her death.

The first time I saw her, 11, A.M., Feb. 3d, 1869, I obtained a specimen of blood from the tip of one of the fingers, which showed the white corpuscles to be considerably increased, there being from twelve to seventeen in a microscopic field of moderate size—the same field showing only one, and

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in some instances none, in blood from healthy persons. The temperature in the axilla at this time was 97°. The urine was normal. Another specimen of blood obtained Feb. 6th, six hours after the last food had been taken, showed a somewhat larger number of white corpuscles.

Section-cadaveris forty hours after death. Emaciation extreme. Rigor mortis slight. Chest 25 inches in circumference. Arm 4 inches in circumference around biceps. Thigh 7 inches in circumference at middle. A mass of glands in right parotid and submaxillary regions two-thirds the size of the closed fist; one gland, two by two and a half inches superficially, in left parotid region, together with several smaller ones in submaxillary region of the same side.

Head.—Several patches of ulceration in right temporal region involving only the skin, the underlying periosteum being healthy. Considerable serum in arachnoidal cavity. Brain rather less firm than usual, but no real softening. On removing the brain a morbid growth was found, involving the body of the sphenoid and basilar portions of the sphenoid and occipital bones, and extending into the right middle fossa of the base of the skull. The growth surrounded the second, third, fourth and fifth nerves of the right side, and the third and fourth of the left side. The bones involved by the disease were partially destroyed—absorbed. The portions remaining were cut through and the growth found to involve the ethmoid and portions of other surrounding bones, and partially filled the nasal cavities. Three or four mucous polypi occupied the remaining portion of the nares. The right orbital roof was cut through, and the post-ocular cellular tissue and eyeball found to be in a healthy condition, there being no evidence of having been suppuration in the orbital cavity. The morbid growth did not extend into the cavity of the orbit. The dura mater covering the growth appeared to be healthy.

Thorax.—Thymus gland enlarged, three and a half to four inches in length. Two ounces of fluid in pericardium. Heart normal; some coagulated blood in left side, and a firm white coagulum one-half inch in diameter in right ventricle, extending through pulmonary orifice and firmly interwoven with the columnæ carneæ; no blood in right side. Large venous vessels filled with dark colored fluid blood. Lungs pale anteriorly and somewhat congested posteriorly. Slight adhesion of right anterior pleural surfaces. One small cavity one-half inch in diameter in left apex, containing li-

quid pus; no communication with bronchia. Pleural wall of cavity one line in thickness, with no marks of pleuritic inflammation. Small portion of right apex filled with grey granulations, also one small cheesy mass.

Abdomen.—Liver, stomach, spleen and kidneys normal. Right ureter enlarged in diameter and constricted at entrance to bladder. Intestines normal, except one small glandular-looking patch, situated five feet above the ileo-cæcal valve, presenting the shaven-beard appearance of a Peyer's patch. Supra-renal capsules enlarged; three and a half inches in length, seven-eighths of an inch in breadth, and three or four lines in thickness in the thickest portion, and of a yellowish-red color. Pancreas slightly larger than usual. Organs of generation normal. The remains of a true corpus luteum, containing blood-pigment, were found in the right ovary, and a cyst three lines in diameter filled with reddish serum in the left.

Blood taken from the large internal venous vessels contained a relatively large number of white corpuscles, that taken from the splenic vein containing a very large number; one specimen showing fifteen white, to one hundred and fifty red, corpuscles. The white corpuscles in all the specimens examined were of full size.

Microscopic examination by Dr. John Homans showed the glandular tumors and the morbid growth at the base of the brain to be composed of small spherical and ovoid cells containing distinct nuclei and somewhat granular, together with more or less nucleated fusiform cells, but there were very many less of these latter in the glandular tumors than in the other morbid growth.

At the request of Prof. J. B. S. Jackson, I sent the specimen obtained from the base of the brain to Dr. Robert T. Edes, of Hingham, for minute dissection. The following is his description:

"The morbid growth seemed to be connected with the basilar portions of sphenoid and occipital bones, involving also the petrous portion of the temporal bones to a slight extent—the right the larger. Anteriorly I could not say very well what bones were involved, except that I recognized the clinoid processes anterior and posterior. The dura mater was spread over the upper surface and presented foramina for the passage of nerves; of these the second (optic) on the left side rested in a notch on the anterior portion of the tumor, and was apparently healthy. On the right side the notch was deeper and the distal extremity of the piece remaining with the specimen

was softened, and of a yellowish hue. Microscopically it presented many fat-granules, although a considerable portion of normal substance remained. The right nerve of the third pair was more deeply buried, and was adherent to the surrounding substance—was thickened and reddish. At the enlarged portion it presented a considerable proportion of fibrous tissue. At the point where it divided into its two branches to be distributed to the muscles of the eye, one branch contained much fibrous tissue, and few, if any, nerve tubes. Some parallel fibres were seen which were probably nerve fibres deprived of the medullary substance, since they did not present the usual dark bordered appearance. The other branch showed a very well marked condition of fatty degeneration, nearly all the fibres being dark and granular. The fourth nerve was found on neither side.

"The fifth was—on the right side—so deeply buried in, and closely united with the antero-lateral portion of the tumor that the branches a short distance beyond the Gasserian ganglion were very difficult to trace. The one which I did trace and which was probably the inferior maxillary division, was apparently healthy to the eye and to the microscope.

"The growth itself seemed to consist of fibrous tissue, with a great many small oval or elongated nuclei."

The fourth nerve on the right side had degenerated to a mere filament, and had probably been torn away in consequence of the prolonged handlings and examinations to which the specimen had been subjected previous to its being seen by Dr. Edes; on the left side the tumor was cut very near to the fourth nerve, which was probably likewise torn away.

A few points in this case are worthy of special notice.

The slow development of the disease and the still slower deterioration of the general health; the disease existing at least twenty months, and the patient being able to be about until a short time previous to her death.

The large relative increase of the white corpuscles of the blood taken in connection with the enlarged thymus and lymphatic glands and supra-renal capsules.

The loss of the physiological functions of some of the nerves involved in the morbid growth at the base of the skull, although the functions of the different nerves do not seem to have been impaired strictly in proportion to the apparent extent to which they were respectively involved by the dis-

ease. The right optic lost its function, as shown by the blindness of the eye of that side, the growth involving the nerve at some distance anterior to the optic commissure, which remained healthy. The substance of the right nerve of the third pair—*motores oculorum*—and also the right one of the fourth pair—*pathetici*—being involved, we should have expected loss of motion in the right eye, together with paralysis of its upper lid, and such was the case. Although the fifth nerve of the right side was deeply buried in the morbid tissues its functions were not much disturbed, which fact harmonizes perfectly with the result of the microscopic examination of its structure. The integumentary ulcerations in the right temporal region may have been due to degeneration of the auriculo-temporal branch, although, as previously stated, I could not detect any loss of sensation in any portion of the integuments covering the head and face. The functions of the other cranial nerves did not suffer impairment, with the exception of the sense of smell, which would of course be interfered with, in consequence of the existing obstruction of the nasal passages.

And lastly, the large relative increase of the white corpuscles of the blood, taken in connection with the enlarged thymus and lymphatic glands and supra-renal capsules, giving the case a decidedly leucocythæmic aspect when viewed independent of the growth at the base of the skull—as it was during life.

The morbid growth seems to have been identical with the *fibro-plastic* growth of Lebert and Paget, and the *sarcoma fusiforme* of some of the German pathologists.

What was the nature and cause of the disease? Was the morbid growth at the base of the skull the primary and main disease, and the glandular enlargements and increased number of white blood corpuscles mere sequelæ and concomitants? or were the whole series of pathological changes due to some abnormality of the blood-making organs or processes? or did the case present two different diseases, each independent of the other? The increased number of white corpuscles, the enlarged thymus gland and supra-renal capsules, and perhaps the enlarged lymphatics about the neck, all belong to leucocythæmia.

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Drs. L. Damainville, W. H. B. Post, C. F. Roberts, and Albert Strang have received appointments as Sanitary Inspectors for the Board of Health in New York.

DISEASE OF THE SUPRA-RENAL CAPSULES,  
WITH A CASE.

Read before the Worcester North District Medical Society, Jan. 12th, 1869, by ALFRED HITCHCOCK, M.D., Fitchburg, Mass.

IN examining the anatomy of the supra-renal capsules, we find them largely endowed with bloodvessels and nerves; but without cavities or excretory ducts. Some anatomists state that no other organ of the body is so richly endowed with nerves. The physiology of these bodies is entirely conjectural. Dr. Wharton, in the last century, called them "nerve ganglions," and assumed a connection between them and the spinal cord and sympathetic nerve. Kölliker, a late German pathologist, thinks there is a connection between these organs and the brain, and the anatomical resemblance between these bodies and the solar plexus, as revealed by the microscope, is remarkable; the cell-formation is said to be very like nerve-cell, if not identical with it. Certainly their minute anatomical structure is very different from that of the thymus and thyroid glands, with which they are often associated. It has been observed by anatomists that in negroes and other dark races the size of these bodies is relatively greater than in the white races. This fact has been followed by the inference that these bodies were in some way associated with the genital organs, which are well known to be more largely developed in negroes than in the white races. Dr. Brown-Séquard has shown that injury of the spinal cord above the supra-renal capsules is followed by hypertrophy of these bodies; and that their removal from living animals is followed by an accumulation of pigment in the blood, and his hypothesis of their function is "to prevent the formation of pigment in the blood." These bodies are known to have been the seat of tubercle, of cancer and of cystic tumors; of apoplexia, degeneration and hypertrophy; and yet the diagnosis of disease of these bodies is hardly possible, except in that stage of disease which is now well known to be associated with a "bronzed skin." Dr. Addison,\* the senior physician of Guy's Hospital, London, after a long and laborious research, and after watching a large number of cases during life, and verifying the pathology after death, has established the fact that a peculiar degeneration and hypertrophy of the supra-renal capsules is associated with a peculiar variety of bronzed skin. His cases show, in their history,

great nervous and mental prostration, a flabbiness of the muscles, great breathlessness, epigastric pain or uneasiness, and nausea, increasing debility, and, generally, sudden death. Emaciation is usually not great; and sometimes, or very often, the disease exists with a large amount of adipose deposit in all parts of the body, although the patient is decidedly anæmic. In these cases the supra-renal capsules are usually enlarged, hardened, and of a yellowish color; quite often they cross the vertebrae and coalesce as one body. Minute dissection and the use of the microscope simply show negatively that the enlargement is neither tuberculous nor cancerous, but something resembling (to the eye) a fibro-plastic growth, presenting under the microscope amorphous granules in a net-work of delicate white tissue. The bronzing of the skin in these cases may be general or very limited, and usually begins on old cicatrices, or about the face, the nipples, or the genitals, or on the knuckles, the elbows, or the epigastrium. The skin at the points of discoloration appears unchanged in structure—the rich "bronzing" is all that is noticeable. In this respect the staining is unlike "*moth patches*," or "*ephelis hepatica*," or "*maculae hepaticae*," or the copper-colored eruptions of tertiary syphilis, or the straw-colored hue of anæmia. There is no desquamation, nor any kind of moist or dry exudation, and the bronzing cannot be *washed* or *rubbed* off. In Dr. Addison's cases the shade of coloring differed: in some it was of a mulatto hue, and in others like that of a quadroon; in some it was general, but in most it was marbled, selecting, as before stated, flexures of joints, cicatrices, and points near where the skin and mucous membranes coalesce. In some of the *marbled* cases the intervening skin appeared of a pearly whiteness by contrast, as though the pigment might be defective in some parts and deposited in excess in others. Dr. Addison found also that the peritoneum and pleura in these subjects exhibited the same bronzed discoloration in spots.

Disease of these bodies may be acute or chronic; and, according to Dr. Addison, the "bronzing" follows in the same order. Cases are reported which lasted from two months to seven years. In some, the disease has seemed to give a *truce* of a few months or years, ultimately returning and destroying the patient, and giving an opportunity to verify the pathology. In the summing up of this subject (with characteristic modesty), Dr. Addison says:—"My ex-

\* Dr. Addison died in 1860, aged 67.

perience, though necessarily limited, obliges me to consider the disease as *frequent*, and one which, when we shall have become familiarized with its symptoms and progress, will lead us to discover instances which, in the present state of knowledge, pass unheeded or undetected. I am satisfied that if a partial disease of the supra-renal capsules gives rise to a condition and symptoms too equivocal to authorize a confident diagnosis, a more extensive lesion produces a group of phenomena sufficiently well marked to make us not only suspect the source, but even confidently affirm that it depends on a disease of the capsules. When the pathological alteration of these organs is acute and rapid, I believe that, the anæmia, prostration and peculiar discoloration of the skin pursue a similar course. In every case, whether acute or chronic, *when the disease has included the whole of the two capsules, death has been the inevitable result.*"

It was my privilege to see Dr. Addison's cases of this disease in Guy's Hospital in 1851 and 1852, and to hear from his own lips the history of the cases and the results of some of his *post-mortem* examinations. In 1855 he published his monograph on the subject. In 1856, Dr. Hutchinson, of London, wrote a review of Dr. Addison's book, and analyzed his cases, and came to the following conclusions.

"1st, No single case has yet been recorded in which a well-marked bronzed condition of the skin existed and recovery ensued, nor in which, after death, the supra-renal capsules were proved to be healthy.

2d, "No single case has yet been recorded in which, after death, both supra-renal capsules were found disorganized by chronic disease, and in which the skin during life had not assumed the bronzed condition."

Since this was published cases have been reported which seemed to conflict with these statements, although in the main Dr. Addison's and Dr. Hutchinson's conclusions are sustained, so that we may now consider this disease about as well established as "Bright's disease"; or as "leucocythæmia," as established by Bennet and Virchow. It is a little remarkable that these three diseases have all been identified by men of the present generation, all belong to the *cachexiæ*, and are all about equally intolerant of remedies.

The researches of Dr. Addison and of all who have followed him in studying the pathology of the supra-renal capsules, lead to the conclusion that these bodies exercise an important, but unknown function; that

they possess an intimate and important connection with the organic system of nerves; that their morbid condition modifies the relative quantity of the pigment of the blood; that they are subject to all the usual results of inflammation in other tissues; that they are also subject to *cancer*, *tubercle*, atrophy and hypertrophy, as well as to a peculiar enlargement, induration and degeneration which is unique and unclassified; with all of which morbid conditions there is always associated more or less *bronzing of the skin*. Disease of these bodies may be independent of any other local affection, or may be associated with disease in other organs; but in either case there is anæmia, and all those depressing symptoms which attend exhausted vitality. When both organs are involved so as to suppress their function, whatever that function may be, death is the result. It is quite probable that when only one capsule is involved the patient may recover and live for an indefinite time. Of remedies we know none except such as are usually given in cases of extreme debility from anæmia arising from other causes. The usual routine of tonics and good diet comprises about all that can be said on this subject.

The true diagnosis in these cases can seldom if ever be made out till the disease is far advanced, and even then we know of no remedy that promises relief except that class of agents and influences which restores vital power and builds up the nutrition and tone of the system.

In my own practice I have had but one well marked case of this disease, which I will here relate, and exhibit the morbid specimens for your examination.

Mrs. W., aged 25, of a sanguine and nervous temperament, with dark hair and eyes, and a mixture of the brunette and florid in her complexion. Was confined with her first child April 18th, 1866. For two or three years previous she had suffered a good deal from dyspepsia and chronic diarrhœa. During her pregnancy she was very well, became quite fleshy and had a very roddy countenance. For the last three weeks she had a dry cough, and sometimes had faintness and dyspnoea. Her accouchement was attended with no unusual symptoms; the child was healthy, and every circumstance in her case for several days gave promise of favorable recovery. The secretion of milk was established, and the appetite and digestion seemed to resume their natural condition. She, however, continued weak, would easily faint, had a slight, dry, hacking cough, with some dyspnoea, and grew

very sensitive to all causes of physical or mental emotion. At the end of three weeks she rode out two or three times a short distance, but was evidently too weak for the effort. The last time she rode out she unfortunately encountered the shocking sight of a horse impaled on a picket fence, completely eviscerated, and dying by the roadside. This produced a very severe shock. She immediately became alarmingly faint, was carried home, took to her bed and was never again able to be raised fully up in her bed without fainting. From this time the milk wholly disappeared. The appetite diminished and became capricious. The pulse, which had been a little quicker than natural since her confinement, now rose to 100 and 120, and was very soft and feeble. There was almost constant nausea, with epigastric pain or uneasiness; sometimes pretty severe pain in the right lumbar region, and occasionally fugitive pains about the chest. She was almost constantly troubled with breathlessness, as if wanting more air without the strength to inflate the lungs. There were no physical signs of thoracic disease; there was no diarrhoea, no sore mouth, no sweating, no morbid discharge from the kidneys or bowels, no chills, no fever, save, perhaps, a flush over the malar bones for the last few days of life, no delirium till in articulo mortis.

About two weeks before death the skin assumed a dark, dingy look, more manifest in spots; the appearance being dirty, as though soap and water would remove it.

Dr. Woodward, of Worcester, who with Dr. Colony saw the case with me, first suggested the possibility of supra-renal disease in this case. These spots very soon became bronzed of a very deep color, leaving no doubt in our minds of the true nature of the disease.

The bronzing was chiefly manifested on the breasts, at epigastrium, around the navel, and lower part of abdomen, at the knuckles and knees, and wherever there was a cicatrix, or any irritation or abrasion of the skin had existed. All the symptoms of debility, with the bronzing of the skin, continued to increase till death, which took place June 6th, about seven weeks after confinement. A *post-mortem* examination was made the following day, Drs. Colony, Miller and Rice being present.

There was a good deal of adipose tissue on the body, and the bronzed spots were even more manifest than before death. There was a very slight adhesion of the apex of the left lung, and in the vicinity were a few small tubercles, and one cavity about the

size of a pea. The right lung had a few very small tubercles at its apex. The bronchial tubes contained a good deal of frothy mucus or serum, which was evidently one of the last changes before death. The heart was soft and flabby, as were all the muscular tissues of the body.

The stomach and intestines showed no disease, though they were very thin and pale. The liver appeared natural, except that there was a studding over the surface of minute pale white spots, as though minute drops of milk were flattened underneath the peritoneal surface.

The kidneys, pancreas, mesenteric glands and genital organs were perfectly healthy. The supra-renal capsules were greatly enlarged, dense and yellow, and coalesced into one mass across the spine. When first removed they were five and a half inches long and of a width varying from one to two inches, semi-lobulated, and with curvilinear margins; the average thickness was about half an inch. They were yellow, dense in structure, and had a feel and an appearance under the knife, intermediate between scirrhus and hard tubercle; and under the microscope nothing was revealed to identify them with either.

#### CEREBRAL AMAUROSIS.

By Dr. G. MEYER, K.K. Kreisphysicus in Steyer.

[Translated for the Journal by R. JOY JEFFRIES, A.M., M.D., from the Vienna Weekly Medical Journal.]

(Continued from page 76.)

THAT *apoplectic effusions* may sometimes cause amaurosis is readily conceivable. I speak only of cases where this symptom was of special import. Of seven cases (reported by Dunn, Risdon and Bennett, Kanka, Henkel, Weber, Beck and Romberg), the extravasation was twice in the corpus striatum, twice in the hemispheres, once in the optic thalami, once in the crus cerebri, and once in the cerebellum. In the last case, the anterior part of the right cerebellum was softened to a pulp, the cerebral vessels atheromatous, especially the arteria vertebralis; the optic nerves soft and atrophic. There was marked sexual excitement in this case, weakness and stiffness in the left foot, and severe pain in the back of the head. In Risdon and Bennet's case, as also in Kanka's, there was organic disease of the heart and an atheromatous condition of the cerebral arteries; in two other cases, this latter. In one case the effusion was in the middle of the left corpus striatum, and paralysis of all the voluntary muscles of the

right half of the body. In Kanka's case there was blindness of the right eye, reduced vision in the left, palpitation, headache, with great weakness. There was found insufficiency of valves of the aorta from ossification, dilatation of left ventricle, the right internal carotid dilated and atheromatous, as also the ophthalmic, the optic nerve up to the chiasma altered to a thin string, the left one apparently unchanged. In the left anterior cerebral lobe, near the corpus striatum, a not very old apoplectic effusion the size of a walnut. In this case it seems that the apoplectic effusion was not so connected with the ocular trouble which had previously commenced as with the disease of the ophthalmic artery and heart. In Romberg's case there was an old extravasation in the right and a fresh one in the left hemisphere. Symptoms of muscæ volitantes and phantasm preceded the blindness. Paralysis, of course, accompanies these cases.

*Hardening of the brain*, with troubled vision, is reported by Horoship (Abercrombie, l. c. 251), by Spanton (*Med. Times*, May, 1863), and by Romberg (*Lehrb. d. Nervenkrankheiten*, l. p. 193). The first case was that of a boy who had been struck on the head with a ruler; a tumor formed and discharged pus for six years, and then healed, upon which dimness of vision and epilepsy occurred; section showed the pia mater inflamed at the point of injury, and the whole middle cerebral lobe hardened. In Spanton's case the left crus cerebri and the anterior part of the commissure was hard and fibrous, the left oculomotorius thinner and bluish; there was corresponding paralysis of the left oculomotorius, and paralysis of motion and sensation of the right half of the body and face; diminished accommodation *left*, is all reported. In Romberg's case there was hardening of the inner edge of both posterior lobes of the cerebrum and of the cerebellum, besides four ounces of yellowish serous fluid filling the dilated left ventricle. The most marked symptoms here were headache, dizziness, vomiting, squinting of the right eye, dilatation of the pupils, convulsions and sepor.

Cases are not so very rare in which *aneurism of the cerebral arteries* caused amblyopia and amaurosis. Of eight cases (reported by Abercrombie, Hare, Barth, Middlemore, Ogle, Spurgin, Flandin, Delpech), the aneurism was three times in the left communicans post., twice in the internal carotid, twice in the art. corp. callosi, once in the art. cerebelli anter. sin. In two cases (art. corp. call. et art. commun.

post.) there was no disturbance of vision. In these cases, besides headache and dizziness, there was paralysis of some of the ocular muscles and apoplexy noticed. In two cases the disturbance of vision was only on one side.

According to Lebert's investigations, aneurisms of the cerebri media are much more frequent than of the other carotid branches, and he points out that dilatation of the carotis int. presses the optic, of the communic. post. the oculomotorius, of the communic. ant. the chiasma; therefore for the carotid system troubles of vision and motions of the eye are of importance, and in aneurism of the carotid itself progressive amaurosis may appear upon one or both sides. A long latency precedes the marked symptoms. At first, general signs of organic cerebral disease, then pressure on individual nerves, troubles of the intelligence; later, paralyses and apoplectic attacks. The course is at first quite slow, but paralysis may suddenly occur.

Of diseases of the spinal cord in which amaurosis was a marked symptom, I found eight cases reported, by Teschenmacher, Abercrombie, Melicher, Steinthal, Chariot and Vulpian, Kanka, Romberg, and one case from the Vienna hospital. Among these, there was once softening of the medulla oblongata, induration of the same once, induration of the cervical portion once, induration of the anterior and posterior roots once, atrophy of the cord once, and breaking down of the connective tissue of the posterior roots once. In the majority of cases vision faded gradually, dimness preceding; headache only once; the other senses, hearing and smell, were each once affected; speech in two; swallowing troubled in one case; the special peculiar symptoms of spinal disease occurred, however, in all these cases—troubles of motion and sensation, feeling of constriction, trembling, &c. In Kanka's case, the amblyopia was complicated by tetanus. An apprentice, æt. 20, took cold whilst convalescent from typhoid fever, and severe pains in the limbs and temporary immobility appeared; there remained a gradually increasing dimness of vision, which went on to total blindness; the pupils moderately dilated, and repeated attacks of muscular stiffness and tetanic cramps. The spinal column was tender on pressure over the upper four dorsal vertebræ. Death occurred some two months after his reception, during such an attack. The spinal cord was found softer than common; the meninges somewhat infiltrated with serum.

Cases remain to be spoken of in which original disease of the cranial bones was the cause of amaurosis. In six such cases (reported by Abercrombie, Wepfer, Lyell and the Report of the Vienna Hospital, 1851-52), the disease was twice in the petrous portion of the temporal bone, twice in the left parietal bone, and twice also in the frontal and sphenoid bone. In one case, a medullary cancer, springing from the frontal bone and base of cranium, compressed the right corpus striatum; there was blindness on left, exophthalmus on the right, and paralysis of upper and lower extremities on left side. In another case (a fistulous opening of the left parietal bone into the cerebral hemisphere), there was paralysis of the extremities right, impairment of memory and slow articulation. In Lyell's case, a tumor of two ounces' weight lay in the left fossa orbit. of the parietal bone, and had affected the sphenoid where the foramen op. and lacrum pass through it, as also the nerves and vessels; a portion of the tumor surrounded the right optic. In this case, after a blow on the back of the nose, there appeared pain and deafness; later, an extended neuralgia of the trigeminus; and finally, after two years, increasing blindness, with paralysis of the motor nerves of the eyes. In those cases where the sphenoid bone was the seat of the disease, hearing was affected, as we should suppose. In two of six such cases there were epileptic attacks.

We can by no means determine from these briefly related cases, how often in these diseases the amaurosis was caused by them; for this a very much more extended statistical observation of cerebral affections would be necessary. We may, however, conclude that organic disease, especially cerebral tumors, and of these those in the hemispheres and hypophysis, very often produce amaurotic blindness. Blindness is always present where tumors, extravasations and exudations directly affect the optic or chiasma. According to Wunderlich, loss of vision may occur with the most manifold troubles; he, however, particularly mentions disease of the corpora quadrigemina, cerebellum, walls of the lateral ventricles, the middle and posterior lobes and the base of the brain. According to Lebert, there was trouble of vision in two fifths of the cases of cerebral tumors; and in 101 cases, 20—i. e. 20 per cent.—with total blindness. Whether blindness in these cases was on one or both sides, is seldom determined from the local disease. Morbid products at the base of

the cranium, as also at the base of the brain, generally cause binocular amaurosis; so, too, with affections of the hypophysis. Graefe says (*Archiv. für Ophth.*, 7, 2, p. 67):—"Unilateral disease of the hemispheres, whether apoplexy, encephalitis or tumors, causes, if the visual centre is affected, only hemiopic trouble in one or both eyes; never, however, complete blindness of the same or opposite eye." But cases of bilateral amaurosis, even with unilateral cerebral disease, are more frequent than unilateral blindness; this, in the majority of cases, is explained partly by the pressure on the chiasma, partly by the morbid products, even when unilateral, pressing on the other half of the brain, or causing interference of circulation there. These latter often produce amblyopia, as we know that inflammation of the optic nerve and adjacent parts of the retina are caused by pressure of morbid tumors on the sinus cavernosus. The cases of the above where unilateral blindness alone existed are as follows:—

1. Pus in the left orbit and cranium,	Blindness, left.
2. Aneurism left art. communic. pressing on left optic,	" left.
3. Abscess left cerebral lobe,	" left.
4. Apoplectic deposit in right anterior cerebral lobe,	" right.
5. Softening of left corpus striatum,	" left.
6. Softening of left corpus striatum and thalamus opticus,	" left.
7. Hydatids, left hemisphere,	" right.
8. Three cases, tubercle in left half of pons,	" left.
9. Tumor in pons, reaching to right crus cerebri,	" right.
10. Medullary cancer in right crus cerebri and corpus striatum,	" left.
11. Cancer, left cerebellum,	" left.
12. Tumor, left thal. opt. and pons,	" left.
13. Hydatids, left opt. thal. (Romberg),	" left.
14. Tubercle in right corp. oliv., right half of chiasma and commencement of right optic nerve, and its optic tract infiltrated with tubercle,	" left.

According to Serres, anomalies in the optic thalami, and, according to Breschet, troubles of the anterior cerebral lobes, do not necessarily produce blindness.

Before I pass to the discussion of the symptoms accompanying these various organic cerebral affections, in order to connect their appearance with the organic disease and establish the diagnostic value, I would further add that among the cerebral tumors are included the hydatids and tubercle. Of the first, thirteen are noted. Four at the base of the brain, three in the hemispheres, two in the left lateral ventricles, two in the hypophysis, and one in the left optic thalamus. In twelve cases the tumor was recorded tuberculous; of these seven were in the hemispheres, three in the pons, one in the cerebellum and one in the hypo-



physis. As respects age, both hydatids and tubercle occurred much more frequently in young individuals, whilst the age in the cerebral tumors (mostly sarcoma and cancer) was very varying.

As respects the symptoms we must remember, that many of the diseases mentioned, especially cerebral tumors, may remain quite latent an indefinite time, and that this is particularly the case during their commencing development, so that the symptoms only become more marked as the growth of the tumor causes pressure upon the various parts of the brain, or upon certain nerves and nerve districts, or finally the circulation is interfered with. It is to be further noticed that towards the end of the complaint certain symptoms appear as so-called terminal phenomena in the most various cerebral diseases, and in the most varied seat of the same; amongst these are especially noticed sopor and comatose attacks, loss of sensation in the higher organs of sense and over the whole body, convulsive symptoms, general paralysis and general torpor, with emaciation. Death from apoplexy, coma and paralysis of the brain generally close the scene.

*Pain in the head* was present in nearly all the cases recorded, most constant with disorganization of the hypophysis, the hemispheres and the pons, also with softening and abscess. Pain in the head is relatively rare with hardening of the brain, and diseases of the spinal cord. In affections of the cerebellum it is present, and felt more in the back of the head. (According to Andral's observations there was pain in 26 out of 36 cases of cerebral tumors.) The seat of the pain does not always correspond to the seat of the disease. By reduction of the sensibility, pain in organic cerebral disease often intermits, so also often the pain in the head ceases entirely when total blindness has occurred. Pain in the head is always present in diseases of the pericranium and cranial bones.

*Dizziness* is a very inconstant symptom, especially, however, noticed with tumors of the hemispheres, in some cases of disease of the hypophysis and in aneurisms of the cerebral arteries.

*Troubles of consciousness* (sudden or oft recurring unconsciousness) are most frequent with diseases (tumors) of the hemispheres and softening of the brain. Attacks of sopor and coma are reported especially in cases of disease of the hypophysis, exudations at the base of the brain, formation of pus and cerebral abscesses.

*Troubles of the mental faculties* were no-

ticed in several cases of disease of the hypophysis (5 times in 22 cases) and in apoplectic effusions (3 times in 7 cases).

*Sopor* was rarely reported as a symptom (only twice in tumors of the hemispheres, and in one case of tumor of the hypophysis, one, hydatids in the ventricles, and one with softening). *Sleeplessness* in two cases of cerebral tumor.

*Apoplectic attacks* occurred, besides the seven recorded cases of apoplectic effusions, three times in tumor of the hemispheres, once in tumor of the pons, once in multiple tumors, once in exudation in the ventricles, once in aneurism, and once in disease of the bones.

*Epileptic attacks* were recorded in tumors of the hemispheres four times, of the base of the brain twice, in multiple once; in disease of the bones twice, induration of middle lobe (previous injury) once, softening of the hemispheres once, abscesses of anterior lobes twice, aneurism art. cerebelli once.

*Vomiting*, so often observed in cerebral disease, was most constant in exudative processes on the surface and at the base of the brain (7 times in 8 cases), in tumors of the hypophysis (5 times in 22 cases), and of the hemispheres 4 times in 22 cases.

*Hyperæsthesia* of the nerves of sensation was seldom mentioned as a symptom (3 times in disease of the hypophysis); increase of sensibility occurs most frequently in the sense of sight and hearing.

[*Hyperæsthesia* of the optic (photopsia, phantasm) was particularly marked in two cases of Romberg's, where the optic thalami were affected. In one case (reddish-gray pulpy softening of left optic thalami, and cavity in posterior lobes of right hemispheres filled with olive-colored fluid), there was also dizziness and unconsciousness, weakness and then paralysis of the left arm, and apoplectic fits, after the second of which death occurred. A second case also ended fatally with apoplexy, in which there was headache and loss of vision, unconsciousness and impaired motion, and loss of speech. The left lateral ventricle was filled with a mass of bladder-like hydatids, and both optic thalami with the whole anterior cerebral lobe changed to a pulpy mass. Photophobia was also reported in one of Romberg's cases, in which there was softening of the septum lucidum, fornx, and the walls of the lateral ventricles.]

That in cerebral diseases other senses besides the visual should be affected, is, of course, natural; it depends upon the locality and extent of the affection. First of all this applies to hearing, and in the above

mentioned cases this sense was expressly noted as impaired or entirely destroyed in 17. In the majority there was disease of the bones (pars petrosa), also in tumors of the hemispheres, the pons and in multiple tumors. The participation of the other senses (smell and taste) occurred 10 times, 4 times in tumors of the hemispheres, twice in tumors of the pons.

Fardel (*Bull. de la Soc. Ant.*, Aout. 1836) observed a case of encephaloid of the right posterior cerebral lobe, a similar mass on the crista galli, in meatus auditorius and the cavity. The patient had pain in head and nasal hemorrhage, became suddenly blind and deaf, first left, then right.

*Impaired speech* is a symptom which has lately been carefully studied in reference to the locality of the cerebral disease. Amongst the whole number of cases it was noticed 23 times; in 5 cases of disease of the pons and crus cerebri, in 4 tumors of the hemispheres, in 3 of disease of spinal cord, once each in disease of ventricle and softening of the brain, finally once each in multiple tumors, disease of the hypophysis, hardening of the brain (in pons and crus), abscess, apoplectic effusion (corpora striata), aneurism, and disease of the bones.

In most of the cases of impaired speech, where *post mortem* was made, there was softening of the brain, preceded by embolus and thrombus; also neoplasms (tubercle) in the several lobes. As a rule the *left* half of the brain was affected. Most frequently the softening affected the frontal lobes at the base, generally called by the Germans the first basal turn. Besides, in several cases of aphasia, there was softening of the corpus striatum, the lobus occipitalis, thrombus or embolus of the corresponding art. foss. Sylvii et art. cerebralis media, disease of the olivary (Schröder van der Kolk), and finally disease of the cerebellum. Romberg mentions 5 cases where difficulty of articulation existed, and softening of the corpus striatum was found.

According to Dr. Benedikt's observations the cerebral hemispheres seem to be bearers of the ideas of speech and writing, the frontal lobes the associating organ of the motions necessary for producing written and spoken thought, the corpus striatum the motor centre of the associated impulses of the coördinated movements from the cerebro-spinal axis further down. The cerebellum and perhaps also the olivary, may be the coördinative centre for speech. Spoken and written thought has, therefore, in the brain no one single central seat; trouble with speech without paralysis of the tongue

in disease of the pons Varolii and crus cerebri indicates only disturbed transmission. As unilateral disease may cause trouble of speech, it would seem that the cerebral activity requisite for speech needs at least the combined action of the symmetrical parts of both halves of the brain. In Spanton's case (*Med. Times and Gaz.*, May, 1863) the left crus cerebri was found smaller and transparent like, hard above and behind, the anterior left part of the pons hard (strewed with fat cells and nucleated cells), the left oculomotorius thinner, blueish. Paralysis of motion and sensation of the right half of the body and face, paralysis of the left oculomotorius, the accommodation on left side reduced, speech not plain.

Broca has said that diseases of the *left* half of the brain are much more often accompanied with loss of speech, than those of the right, whilst Dr. Jackson reports 40 cases of trouble of articulation with right-sided hemiplegia, and only one case in which this difficulty was associated with left-sided hemiplegia. Stewart reports a case in which disease of the right half of the brain (hemiplegia of left side) was *without* impaired articulation, and later disease of the left half of cerebrum with loss of articulation. In a case of Peters's (*Gaz. Hebd.* No. 17, 1863) a case of aphasia occurred with softening of the third turn of the *right* cerebral lobe and obliteration of the right art. fossæ Sylvii.

*Difficulty of swallowing* was observed in tumors of the pons three times, tumors of hemispheres and hypophysis twice each, and twice in disease of the spinal cord.

Hyperæsthesia of cutaneous nerves, formation and dull feeling in the limbs (often precursors of paralysis), were most frequent in tumors of the pons, disease of the hemispheres and spinal cord. This symptom is seldom otherwise recorded.

*Convulsions* were pretty often noted in these recorded cases. They were most constant in pus formation and cerebral abscess (5 times), exudations of the meninges at the base (4 times), softening of the brain (4 times), and in tumors of the hemispheres (6 times in 22 cases). Otherwise this was not a very frequent occurring symptom. According to Romberg convulsions occur in tuberculous tumors most frequently preceding or accompanying paralysis, especially when they are in the cerebrum.

*Weakness and paralysis*, as troubled mobility, were much more frequent, and in respect to the diagnosis, particularly as to locality, of more importance. Such interrupted mobility was observed in the eyes

(as strabismus, luscitas, change of the pupil), and also in the limbs.

*Troubled mobility of the eyes* was expressed by strabismus, diverging squint when the oculomotorius, and converging when the abducens nerve was implicated. Such troubles were most frequent in affections of the pons and neighboring parts of the brain (6 times in 10 cases). Such ocular paralysis, especially from interrupted conduction through the oculomotorius, occurred also with tumors in the hemispheres and multiple tumors, exudations at the base, softening and abscesses in the brain, aneurisms and apoplectic effusion. Central causes affect the oculomotorius, especially the branches to the rect. inter. musc. and super., much more frequently than the nerv. abducens. Ocular paralysis is most frequently on the same side as the paralysis of the superior extremity. In some cases the *post mortem* perfectly explained the symptoms. In a case of Dittrich (*Prager Vierteljahrsschrift*, 1845, B. IV.) there was a tuberculous mass in the under surface of the pons Varolii, in which the left abducens was bedded, the left vagus atrophic, and firmly attached to the neighborhood of the jugular opening, the upper part of the nerv. access. Willis thickened thrice its size, infiltrated; tubercle in the right corp. oliv. pressing the root of the hypoglossus and facialis; the left half of the chiasma, the right nerv. opt. and optic tract infiltrated; both optic thalami and corpora striata soft and spongy. The patient's voice was rough, afterwards lost, difficulty of swallowing; weakness, numbness and formication of the left hand, *amblyopia left*, luscitas of left eye with diplopia. In one case of Beck's (*Amnon's Zeitschrift f. Chir. und Augenh.* IV. 3 et 4) the hypophysis was hardened the size of a nut, the nerv. oculomotorius and abducens on the left side pressed outwards by it, nerv. optic unharmed, brain and spinal cord softened as far as first dorsal vertebra. There was convergent squint of left eye, motion of the pupil perfect, binocular diplopia, blindness occurring suddenly but lasting only a few minutes, later mental trouble, sopor and death. In amblyopia with tabies there is frequently ocular paralysis.

[Convulsive oscillation of both globes, with general convulsions and loss of vision, was marked in a child, where all the cerebral ventricles were distended twice their size and filled with a reddish serous fluid. A plastic exudation covered the chiasma at the base. The nerv. oculomotorii were bedded in a brawny mass, which held them fast.]

*Dilatation of the pupil* accompanied in the majority of the cases any continued amblyopia or amaurosis. This symptom means generally want of reflex irritation of the oculomotorius from lack of sensibility to light. When on the other hand the oculomotorius is directly affected by organic cerebral disease, dilatation of the pupil depends on paralysis of this nerve. Alterations of the pupil are especially to be regarded in paralysis and amaurosis from caries of the vertebrae or other spinal diseases. The dilator nerves of the pupil come from the cord near the sixth cervical to the third dorsal vertebra, and pass to the sympathetic through the rami communicantes; the central seats of the iris fibres are the upper and lower cilio-spinal region (from the middle of the rhomboid depression to the second cervical nerve, and from third dorsal to sixth cervical nerve). Any disease, therefore, affecting these parts will be accompanied with alterations of the pupil. These often are simple dilatation of one, whilst the other pupil remains of normal size, as was known in some cases of caries or distortion of the last cervical vertebrae (Rosenthal, *Wien. Med. Presse*, 1865). In a case of Schuchard's (*Deutsche Klinik*, 1864), where during life there was alternate dilatation and contraction of one, then of the other pupil, *post mortem* showed tubercle in the body of the lowest cervical vertebra, displacement from the fourth to sixth cervical and from seventh to eighth dorsal vertebrae; in the corresponding part of the cord there was degeneration of the nerve tubes, from nucleated cells and fatty degeneration of the vessels. In tabes dorsalis, where the hardening comes high up in the cervical portion of the cord, we have the pupil affected, generally dilatation of one. This may be due to a spasmodic condition of the dilator caused by inflammatory irritation or the commencing hardening. If, however, there is paralysis of the dilator, then we shall have contraction of the pupil, the same as we generally observe in spinal amaurosis. Unilateral dilatation occurs also with many cerebral diseases, especially tumors, with hydrocephalus, cerebral softening, and as an important symptom with so-called general paralysis of the brain.

[To be continued.]

IN 1735 occurred the great epidemic known as the "throat-distemper," which has been supposed not unlike our diphtheria, and from this time dates the extensive use of mercurials, which were said to have been specially useful in its treatment.

## Hospital Reports.

### MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY.

Some Cases in the Service of Dr. B. JOY JEFFRIES.

*Separation of the Retina.*—A laborer, æt. 22, awoke in the morning with sudden blindness of the right eye. Has had no pain or previous trouble. The ophthalmoscope showed a large retinal detachment upwards and outwards, extending over to the optic papilla. The papilla could be seen with its bloodvessels. The other eye is myopic  $\frac{1}{2}$ , and amblyopic to the extent of only counting fingers at 20 feet. The ophthalmoscope showed in it staphyloma posticum, and a large and irregular "crescent" two thirds round the nerve. There was, therefore, no doubt that the myopia depended on staphyloma, and that this in the right eye had been the exciting cause of the detachment of the retina.

*Separation of the Retina.*—A female domestic, æt. 24, without previous pain or other cause, has become suddenly blind in right eye. The ophthalmoscope showed detachment of the retina, and in the other eye a "myopic crescent" around optic papilla, vascular injection, and scattered pigment, pointing towards choroiditis as the cause of the retinal separation.

*Piece of Iron in the Sclerotic.*—A mechanic, æt. 44, has, from a chip from a chisel, a foreign body in the conjunctiva, between the inner canthus and edge of the cornea. On attempting to remove this with the forceps, it was found too firmly imbedded, and the conjunctiva was slit up, and a thread-like piece of iron, one fourth of an inch in length, was pulled out of the sclerotic. Although this was within the ciliary region, no trouble followed, and the wound in the sclerotic healed at once. No more pain or irritation was produced than would have been by any foreign body on the conjunctiva removed as soon as this was.

*Amblyopia Potorum?*—A drinking man, æt. 46, has a central scotoma as a grayish-blue spot or blur, some two or three inches in diameter at one foot distance. The ophthalmoscope revealed nothing to explain it. Cathartic pills of blue mass and leeches to the temples relieved the head symptoms.

*Peculiar Cystic Tumor of the Conjunctiva.*—A boy, æt. 6, had, some twenty months previously, in Feb., a stick thrust into the left eye. The mother states that a piece of the wood not larger than the

head of a pin remained in the eye till July, and was then removed. There is now a tumor on the inner and upper side of the cornea, encroaching a little on the latter. It lies round the cornea as it were, is quite prominent, seemingly translucent, and looks like conjunctiva filled with serum. Although it was apparently based on the sclerotic, it evidently was not a staphyloma of the sclerotic coat. With the idea that a foreign body might be within it somewhere, it was slit up, and the fluid, of a serous character, allowed to pass off. The bottom of it was found to be the sclerotic itself, and careful dissection revealed no foreign body. The patient was not again seen, as there was no other trouble with the eye. The chances are that it will again fill, unless some slight inflammatory action closes it from the bottom. No artificial irritation was attempted, as the sclerotic itself was laid bare. A similar case has occurred since.

*Lens dislocated by a Blow.*—A farmer, æt. 18, received, some two months since, a blow from a club over the left eye, and there is now a scar an inch long on the outer and upper border of the upper lid. There is a little exophthalmos. A sclerotic staphyloma up and in. The pupil dilated, the iris tremulous. The lens was seen by the ophthalmoscope to be dislocated up and back. Vision reduced to  $\frac{1}{50}$ . This unfortunate patient was a fortnight at home with the injured eye badly inflamed, during which time he, by advice, made use locally of *poppy leaves, raspberry leaves, acetate of lead, brandy, and arnica*. How much these tended to prevent the firm union of the ruptured sclerotic is hard to say. If the lens is pressing on the ciliary region, the eye will probably not long remain quiet as it now is.

*Swelling of the Lachrymal Gland?*—A little girl, aged 6, has what was supposed to be swelling of the lachrymal gland; the lid over it is tender and red, and a tumor where the gland should be. The eyelids were closed. From the general condition of the patient, cod-liver oil and quinine were ordered, under which the swelling disappeared too rapidly for anything like an abscess, &c.

*Swelling of the Lachrymal Gland.*—A little girl, æt. 4, has oedematous swelling of the right lid and serous infiltration of the outer part of the conjunctiva. In this oedematous swelling, the lachrymal gland could be felt *in situ*, as large as a filbert. A leech and warm-water lotions reduced the whole. About this case there was no doubt. The

previous one was not as clear at the time it was first observed. The last child had had eczema and a sty on the lower lid some six months before.

*Retinal Hæmorrhage.*—A man, æt. 45, complains that all the central field of vision has gone, and ophthalmoscopic examination reveals a retinal hæmorrhage covering the macula lutea and reaching to the optic papilla. Considerable albumen was found in the urine, and the hæmorrhage therefore attributed to renal disease, as was also shown by other symptoms. The case was, therefore, not treated at the Infirmary.

*Coloboma Iridis downwards in both Eyes.*—A little girl, æt. 7, has congenital coloboma iridis. The pupils are two thirds of an oval, fortunately downwards, and therefore not covered by the lids. The patient, although a request was made, was not brought again for ophthalmoscopic examination, to ascertain whether the choroid was also imperfect. The pupils were nearly symmetrical, and gave the child a peculiar look, exactly as if a very careful and successful double iridectomy had been done, as for congenital stationary nuclear cataract. In such cases there is generally an absence of the choroid, the width of the deficiency in the iris, towards and nearly up to the optic papilla. This the ophthalmoscope shows very perfectly; the drawing of a case is to be found in the *Klin. Monatsblätter f. Augenheilkunde*, vol. v., p. 65. These cases show the anatomical relation of the choroid and iris. The retinal vessels are generally found running over the space where the choroid is absent, although vision is here deficient—i. e., the field of vision is defective over a space corresponding to this. This little patient was too young to attempt to obtain any examination of the visual field.

## Bibliographical Notices.

*Atlas zur Pathologie der Zähne.* Bearbeitet von Weil. Prof. Dr. M. HEIDER und Prof. Dr. C. WEDL. Die Zeichnungen Sämmtlich nach der Natur aufgenommen von Dr. C. HEITZMANN.

*Atlas to the Pathology of the Teeth.* Arranged and explained by the late Prof. Dr. M. HEIDER and Prof. Dr. C. WEDL. The Drawings from Nature by Dr. C. HEITZMANN. Leipsic, London and New York.

WE have just received from Prof. Wedl, of Vienna, two parts of the atlas on dental Vol. III.—No. 9b

pathology, the forerunner, as we are informed by private letter, of an extensive text-book on the same subject by this distinguished histologist. The portions of the atlas already issued contain eight folio plates and eighty-one beautifully executed drawings on stone of preparations from the pathological collections of the late Prof. Heider. Two more parts will complete the series and form a work especially valuable in America, the paradise of dentists and the home of the most enlightened dental science.

We are told by one of the professors in the Dental School that no satisfactory work on the subject at present exists, and, with the exception of here and there a chapter in general works on the teeth, dental pathology is sadly neglected. No persons could better fill this gap which is felt to exist in medical, and particularly dental education, than the Professors above named. The one, dying after a long and successful term as an instructor in the Vienna University, left a collection of preparations in dental pathology of great value, and the materials of this work; the other has worked through a long life as a faithful student of nature, and has added many valuable monograms to science. The latter has now carefully arranged the atlas, and is busy on the text of the work.

The atlas should find a place in the library of every pathologist, as well as dentist and dental student.

F. H. B.

## Medical and Surgical Journal.

BOSTON: THURSDAY, APRIL 1, 1869.

### THE CHILDREN'S HOSPITAL.

IN announcing the incorporation and establishment of the Children's Hospital, we are permitted by the Secretary to make extracts from a statement which was drawn up by four physicians of Boston, in reference to the accomplishment of the plan; we are thus enabled to explain to the profession the initiatory steps already taken for the foundation of so desirable a charity.

With the exception of a hospital which was started by a gentleman some years ago, which continued a year or two and was then abandoned, Boston has never had a hospital exclusively for the care of sick children. Nevertheless, those who are

called to practise among the poorer classes know full well the sad mortality of children in these classes, the impossibility of obtaining the proper care, cleanliness, and hygienic surroundings, the reluctance and comparative inability of our existing institutions to receive children into their wards. Many of us have been witness to the good results which have been accomplished in the hospitals of the Old World for the exclusive care of children, and have longed for a similar institution in our own city. With these considerations and some others in mind, we gladly welcome the establishment of a new and noble charity.

The actual need of such an institution can hardly fail to impress itself on the mind of every candid practitioner. The Dispensary physician is constantly and painfully made aware how his directions are neglected, his practice rendered void and his patients killed by the carelessness, the ignorance and the stupidity of their families. We may fairly assume, moreover, that for one child whom disease kills, there are many whom it, more or less, cripples for life, and who, from the cradle to the grave, never enjoy the full possession of health and strength. We cannot hope to take care of *all* the children in the city; but we can look for the amelioration, to a greater or less degree, of some of the evils of sickness; we can hope for some lives saved and some sad hours made easy. We are, therefore, glad to know that many of the most influential men of our community have become deeply interested in this work, and are heartily coöperating for its successful establishment.

We let the medical projectors of the plan tell their story in their own words:—

“The plan which it has been proposed to carry out in this charity has a threefold object; viz.:—

1. The medical and surgical treatment of the diseases of children.
2. The attainment and diffusion of knowledge regarding the diseases of children.
3. The training of young women in the duties of nurses.

We wish to accomplish this threefold object by the formation of a corporation, which shall authorize the organization of a

suitable hospital, and place it under the care of a board of managers, chosen from their own number.

Is the charity needed? We answer that, in our daily professional walks, we see, at the public hospitals, the central office of the dispensary, and in practice among the poor and the working people, that the children are constantly exposed to influences which invite disease in its saddest forms; and the attendant is expected to do that for these classes, which he frequently finds it difficult to accomplish for those in the happiest circumstances. Medical statisticians well know the sad fatality of children in our community; medical practitioners are painfully aware that the hygienic influences which surround the children of the poorer classes are of the worst description. We desire to afford these sufferers, for darkness, the sunshine from heaven; for filth and disorder, cleanliness and system; for the rough word or neglect—maychance a blow or threat—gentleness, kindly attention, encouragement; for mephitic odors, sweetness and purity in their truest sense.

Again, it is constantly falling under our observation, that, among those of this class who are doing their best to live respectably; whose dwellings, although humble, are neat and orderly; who have a laudable desire to rise out of their present condition, and who have every good intention in serving their disabled children—many are unable to carry out the proper treatment. It is impossible to leave stated tasks to give the needed medicine at the right time, or to apply the proper dressing. It is hard for one to watch all night, after bodily toil all day; nature will overpower the senses, however strong the affections.

Among the thousand ills to which these children are subject, there are what we know as acute wasting diseases, such as scarlet fever, bronchitis, fevers; hip disease, abscesses, &c. If these diseases do not entirely exhaust nature and cause death, they very frequently leave the patients with enfeebled frames, and many a little ache and ail which future years only serve to strengthen, not efface. Many, very many children sink into early graves, and greatly swell the bills of mortality of those

who die before reaching adult life. We not only desire to treat these cases, and such as these, successfully, but we also wish to give a tone to the general health of our patients, which may have an influence on their future life. It is in aid of these sufferers that your medical committee stand ready to exert themselves, only asking your sympathy and coöperation in their labors.

What means have we now in our city for the medical and surgical treatment of children? Children are considered undesirable patients in a hospital, and therefore no provision on an extended scale is made in our existing institutions. Although often received and kindly cared for in our present hospitals, it is undoubtedly the fact that the interests of our various institutions cannot allow them to receive many children as patients. Moreover, these little sick children are entirely out of place among sick adults. Adults can complain, if they are neglected; the little fellows cannot do so, or fear prevents them. Our well-ordered charities will not permit neglect or ill-treatment of any one; nevertheless the liability to neglect exists. The beds and general appliances and conveniences of an adult hospital are not fitted to children. Physicians and nurses for children should have a peculiar adaptedness for the management of their young charges. All these matters are well understood by yourselves, interested as you all are, or have been, in public charities.

We cannot help mentioning, aside from the medical welfare of the children, a fact which we have noticed in some of our exemplars, both in this country and Europe; namely, the powerful influence which they are exerting in another direction, by removing, even for a short period, some of the little rough shoots of society from scenes where every moral and mental tendency seems to be in the wrong direction—and *humanizing* them. 'A few weeks with us,' said a noble Christian woman—at the head of one of the New York institutions—to us a week or two ago, 'gives a different expression to their faces, and a different tone to their whole characters.' . . . .

Even in so short a time as one month, the expression of the face of the, at home,

perverse and ugly, becomes humanized by—let us say—the divine influence, surrounding them. God's blessing seems to be upon these places; we earnestly pray him to continue and sustain them.

We believe that, apart from the actual medical treatment of sick and injured children, there is a want in our community which has long been felt in our medical schools, though provided for in foreign cities; namely, an opportunity to study infantile disease. We quote from the experience of a well-known children's hospital in London in reference to children's diseases: 'These, every mother and every nurse knows, or ought to know, are so sudden, so fluctuating, and so mysterious in their nature, and often so fearfully rapid in their fatality that they furnish a distinct branch of medical science, the importance of which can hardly be sufficiently recognized. For people forget that on the health of the growing up generation hangs that of generations more; also, that it is not merely the alternative between life and death, but between wholesome, happy, enjoyable life, and the innumerable forms of death in life which an unhealthy or neglected childhood entails upon the innocent sufferers to the end of their days.'

Still farther, we wish, in connection with the hospital, to initiate a system, hitherto unknown in Boston, of instructing young women of the middle and lower classes in the duties of nurses, both for children and adults. . . . .

We have worked silently and carefully for more than a year in studying the wants of the community, and in perfecting the plans which we ask your coöperation in carrying out. These plans we have fully reported to yourselves, and shall gladly communicate whenever desired by proper persons. . . . .

It is sufficient to say, that, so soon as a corporation is formed, and a board of managers appointed, we shall be ready to point out to them how our plans can be carried into successful operation.

In conclusion, let us venture to hope that you will clearly see the need of an institution for sick children in our city, and the undoubted benefit to our community of

such a charity. We feel justified in saying that we believe it will become an honorable, as it will be a popular, charity; and, for the furtherance of our efforts, we again ask your sympathy and support."

ATTENTION is called to the advertisement headed "Infants' Hospital, Randall's Island, New York City."

On opening the *The Dental Cosmos* for March, we noticed that the leading article was by J. H. McQuillen, M.D., the Senior Editor; its subject, the "Action of Anæsthetics on the Blood Corpuscles." On reading it, we found it to contain a report of important original observations, and marked for extract the passages we give below. We also wrote immediately to Dr. McQuillen, soliciting the loan of the wood-cuts illustrating the letter press. Through his kindness in granting our request, we are enabled to furnish the extracts illustrated by the original delineations.

The results but briefly stated in our extracts were reached through a vast number of experiments.

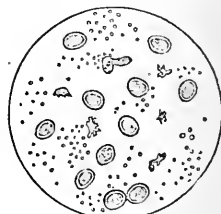
"When under the prolonged influence of nitrous oxide referred to, one of the blood-vessels of this animal [a rabbit] was opened for the purpose of examining the blood corpuscles under the microscope, and ascertaining whether they had become disintegrated or any change had taken place in their form. On examination, no perceptible difference was observable, even after this lengthened exposure to the anæsthetic, when compared with the blood of another rabbit, which was not under its influence. This result induced me to examine into the statements made by Dr. Sansom, relative to the action of anæsthetics on the blood corpuscles, in his interesting and able work on chloroform.\*

"In drawing [his] conclusions, of an altered condition of the blood, from appearances presented by the blood *out of the body*, Dr. Sansom evidently leaves it to be inferred that somewhat if not exactly analogous results are produced on the corpuscles *in the body*, when human beings or animals are under the influence of anæsthetics by inhalation. After a patient, oft-repeated series

of experiments performed by me during the past three months, not only on blood out of the body, but also in cases in which human beings and animals have been placed under the influence of ether, chloroform, and nitrous oxide, and the blood drawn from them *prior to and after* the administration of these agents has been carefully *examined and compared*, the results obtained compel me to take very decided exceptions to such conclusions being justifiable in the premises.

"*First Series.*—The experiments were as follows:—In my examinations of the blood of man and animals, when ether and chloroform were brought in direct contact with it out of the body, under a fifth objective, the discharge of the nuclei and the disintegration of the corpuscle have invariably occurred, and in the frog leaving a result similar to that which is presented in the accompanying drawing (Fig. 1), from one of

FIG. 1.



Frog's blood placed upon the slide, and chloroform brought in direct contact with it.

my specimens, wherein it will be observed that the field is occupied by the nuclei, *débris* of disintegrated globuline and corpuscles, in which the change of form, size, and other characteristics are most striking.

"*Second Series.*—On placing, however, two glass slides containing frog's blood over watch-crystals, one holding chloroform and the other ether, and covering them with glass finger-bowls for half an hour, thus exposing one to an atmosphere of ether, and the other of chloroform, I found, on removing the bowls, and permitting the bloody sides of the slides to remain downward, until all the ether and chloroform had evaporated, that no disintegration or marked change in the form of the corpuscle was observable under the microscope, on comparing them with the blood of a frog unaffected by an anæsthetic. This forcibly demonstrates the difference between exposure to *direct contact* and the *vapor* of chloroform, even out of the body.

\* Chloroform, its Actions and Administrations. By Arthur Ernest Sansom, M.B., London. Philadelphia: Lindsay & Blakiston.



"*Third Series.*—Over and again, in the presence of a number of gentlemen, I have placed frogs under the influence of ether, chloroform, and nitrous oxide, and examined their blood corpuscles immediately after without finding any disintegration or change in the form of the corpuscle. In one instance, a frog was so completely narcotized by chloroform that it died; the thorax of the animal was opened, the lungs cut out, and the blood obtained directly from that organ; and even here, where, if the inference of an altered blood was correct, there should have been discharge of nuclei, disintegration, or marked change in the form of the corpuscle, nothing of the kind was evident, as will be seen by the accompanying illustration, drawn from the slide on which the blood was placed. (Fig. 2.) As

FIG. 2.



Corpuscles from the lungs of a frog which died under the influence of chloroform.

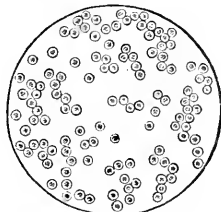
already intimated, the experiments in this direction have been prosecuted on every available occasion within the past few months; and I have not confined myself to frogs, but, in the course of vivisections on a large number of animals (rabbits, dogs, cats, and pigeons), to illustrate my course of lectures on physiology this winter, when these animals have been placed under the influence of ether or chloroform, their blood has been examined, and no change in the form of the corpuscle has been evident.

"*Fourth Series.*—The examination of the blood of a number of human beings, drawn prior to and after having been under the influence of ether, chloroform, or nitrous oxide, for the extraction of teeth, has yielded similar results, as will be evident from the accompanying illustration of the blood, obtained from a patient (Fig. 3) while under the influence of chloroform. Any one accustomed to microscopical examinations will recognize the normal characters of the corpuscles, so far as it is possible to present them in a wood-cut.

"The results of these investigations

were recently presented to the members of the Microscopical and Biological Department of the Academy of Natural Sciences, illustrated by a large number of microscopical slides, and although some time has elapsed since the blood was placed on many of them, the corpuscles retain their form unchanged. . . . .

FIG. 3.



Corpuscles of a patient under the influence of chloroform.

"I cannot refrain from saying, when taking into consideration the readiness with which fluids absorb gases, that undue prominence apparently has been given by physiologists to the blood corpuscles as the carriers of oxygen to the tissues, and carbonic acid gas to the lungs, for it is reasonable to infer that the *liquor sanguinis* is actively engaged in this operation. After the most careful examination under the microscope, I have been unable to observe those modifications in the form of the corpuscles in venous and arterial blood, changing from biconvex to biconcave disks, and attributed to the absorption of the gases, of which so much is said in the books."

In a circular we have received from the office of the "Massachusetts Society for the Prevention of Cruelty to Animals," dated Boston, March 17, 1869, it is stated that the Society is doing a work which needs to be done, and relies upon humane people to sustain it. The names of its officers indicate that it has the sympathy of the best men in the State. But while we feel that Cruelty to Animals has lessened since its organization, yet we daily witness and read of transactions which prove the need of further effort. We are constantly invited to extend our work, and we desire and ought to do so, while there continues to be the cruel beating and overloading of horses on teams, horse cars and omnibuses—the under-feeding and cruel exposure of animals, the bleeding of calves, bagging of cows—while cattle are often without food or water

for thirty to forty hours on our railroads, while old, worn-out, diseased and galled horses are daily worked, and while there are various other forms of cruelty practised which need not here be named. But not only to check these cruelties do we ask support, but to help to educate men, women and children in love of animals, and through them in greater love for their fellow beings.

We take it for granted that individuals may favor the general objects of the Society, and yet differ on the subject of *civisections*, which has been so warmly discussed.

#### NOTES FROM UNION MEDICALE.

Dr. Edouard Fournié, physician to the Imperial Institute for Deaf-mutes, read a paper before the Imperial Academy, on a peculiar form of voice to which he gave the name of *La voix eunuchoïde*. It is characterized as follows: 1. The diapason is an octave above that of the ordinary voice; 2. The *timbre* has not the ordinary masculine quality, and approximately resembles the squeaking voice of eunuchs; 3. This voice is emitted by a perfectly sound organ, which, anatomically, does not differ from the larynx of a man with a normal voice; 4. Laryngoscopic examination enabled the author to ascertain that the foregoing characteristics are due to a functional trouble, or, in other words, to a vicious mode of emitting the sound; which consists in uttering the tone according to the "mixed register," and not in accordance with the "chest register;" 5. This bad habit is traced back to the epoch of the change of voice: in certain individuals the phenomena of the change of voice being accompanied by an inflammatory condition, which causes pain during the emission of vocal sound. . . . M. F. has adopted a system of vocal gymnastics for this abnormal habit of utterance, which, he says, always overcomes it.

Dr. L. Mandl reports a case of *gangrene of the lung*. Phthisis had been diagnosed by another physician. Dr. M. found the patient much reduced; keeping his bed; excessively annoyed by copious fetid expectoration; and having a very quick pulse. There was complete anorexia. Physical examination gave dullness, pectoriloquy, gurgling and "*souffle*" in the lower poste-

rior portion of the left lung. There was also a crepitant râle and diminished resonance beneath the clavicle of the same side. Nothing noticeable on the right side. There had been frequent hæmoptysis. . . .

Dr. Mandl prescribed two "flying cauterizations" on the left shoulder-blade; and fumigations of infusion of althæa with the addition of a small proportion of carbolic acid. Morphine was also given. During the first month of this treatment (May) there was diminution of the violence of the cough, and of the vomiting which the patient had previously suffered from. The sleep was more calm. In June the proportion of carbolic acid was increased. Pills of chloride of sodium were given. The appetite was satisfactory; digestion performed with facility; sleep improved; diminished sensation of weight in the side; slight diminution of expectoration. Subsequently, the fumigations having been for a time omitted, they were renewed with "essence" of turpentine made into an emulsion with glycerine. It does not clearly appear whether or not the carbolic acid was also used again. Another cauterization was made with Vienna paste. The patient began to walk about in July. In September convalescence commenced. In October Dr. M. ascertained the complete disappearance of the moist râles in the left lower lobe. Under the clavicle of the corresponding side jerking respiration persisted. But the general health was most satisfactory; and the patient returned to his usual avocations.

MINUTE ANATOMY OF THE SKIN IN ERYSIPELAS.—From a review in the *Gazette Hebdomadaire*, &c., we learn that the skin, as affected by erysipelas, has been microscopically examined by M. Vulpian, in France, on the one hand, and by R. Volkmann and F. Stendener, in Germany, on the other, with results in some respects conflicting. The reviewer, however, thinks that these explorations have thrown light upon several points in the pathological process in erysipelas; and have shown that there is a rapid and considerable infiltration of pus globules (leucocytes) into the derma and subcutaneous cellular tissue; a rapid disappearance of the infiltrated elements, by

absorption and speedy destruction; disturbance in the circulation, with some changes in the lesser vessels. These points the reviewer considers settled. The explorations were made on the dead subject at points where the erysipelatous process was at its height.

**TUBERCULOSIS OF THE CHOROID.**—In the session for Dec. 9th of the Berlin Medical Society, B. Fränkel reports two cases, where meningeal tuberculosis was diagnosed by the aid of the ophthalmoscope. In the first case, that of a girl of 6 years, vision and consciousness remained unimpaired until death, and no subjective symptom that could prove the existence of meningitis was observed. The second case, in a boy of 8, was so far similar, that the physician "was enabled, from the appearance of the eye alone, to establish the diagnosis, which otherwise would have been entirely uncertain." Hyperæmia of the retina was observed, and, close to the papilla, a white, roundish spot of about one-sixth the diameter of the latter. Three other such spots were afterwards discovered, all fully exhibiting the characteristics of tubercles of the choroid. For four weeks the patient "made no complaint whatever of his eyes; he read, wrote and saw as usual, had neither sparks before his eyes, nor photophobia." "Six weeks after the diagnosis of general tuberculosis was made, appeared the first distinct symptoms of tubercular meningitis." "Both children, at the time of the discovery of the tubercles of the choroid, were in the possession of full consciousness, and showed no subjective symptoms referable to the eye." The tubercles were observed to increase in size as the disease went on; and the autopsy showed the presence of many others in the choroid which had escaped observation during life. The base of the brain presented the appearances characteristic of tubercular meningitis.—*Allg. Med. Central Ztg.*, No. 12, 1869.

D. F. L.

**EXTRACTS FROM THE REPORT OF A CASE OF HOUR-GLASS CONTRACTED STOMACH.**—Dr. W. Thornley Stoker laid before the Society a specimen which he had recently removed from the abdomen of a female subject lying in the dissecting-room attached to the College of Surgeons. It was an instance of a peculiarly rare and interesting condition of the stomach—namely, the division of that organ into two portions, a right, or pyloric, and a left, or œsophageal, pouch. The en-

tire length of the two parts, from right to left, was rather more than twelve inches, and they were obliquely situated in the abdomen, the left being most superior. The œsophageal division, which was more or less globular in form, was the larger, having a capacity of thirty-four ounces; whilst the right portion, which somewhat resembled the usual form of the viscus, held but twenty-five ounces of water.

The constricted part between the two was about an inch in length by three-quarters of an inch wide, and had a peculiar twisted appearance, which became less apparent when the left pouch was distended, and which Dr. Stoker conceived might have acted as a valve, by so untwisting and opening the passage from one cavity to the other.

[Here follows a more minute description. No ulcer is spoken of.]

A careful examination showed that no abnormal condition existed in any other part of the intestinal tract, excepting that the duodenum, which crossed the spine in its usual situation, was somewhat larger than it generally is. As far as he (Dr. Stoker) could ascertain the history of the case, the woman, who was forty-three years of age, and who had been an inmate of the North Dublin Union, had died from lung disease, and had shown no symptoms referable to the state of her stomach.—*Dublin Medical Press and Circular*.

**THE SANITARY CONDITION OF NICE.**—It is, in fact, now being recognized that most people should leave Nice as soon as possible after the beginning of January, in order to avoid its winds and dust. The season consequently grows yearly shorter. Sometimes the winds hold off till February; but unhappily, as I have said, this year they are early.

There is another inconvenience and danger at Nice, which, inasmuch as it can be removed, ought to be brought again to the notice of the authorities. I mean the foul smells arising from the neglect of drainage. This is a growing evil that threatens the prosperity of the town as nothing else does; for there are numberless people who will come to Nice for pleasure if it is not necessary for health, but who would vanish on the outbreak of a pestilence. The rapidity of its growth is almost incredible, the apathy about sanitary laws disgraceful. During the last three years Nice, so far as the visitors' quarters are concerned, has almost doubled.—*Ibid*.

## Medical Miscellany.

**EXTRACT FROM THE REPORT OF THE TRUSTEES OF THE CITY HOSPITAL, BOSTON.**—The following is a statement of the number of patients treated during the past year:—Patients in hospital, Jan. 1, 1868, 141. Admitted, medical, 1,133; surgical, 880; ophthalmic, 61; smallpox, 4. Total, 2,219. Discharged, 1,875; died, 163; remaining, 181. Largest number of patients in hospital at any one time, 230; smallest number of patients in hospital at any one time, 137; daily average number of patients in hospital, 172. Medical out-patients, 3,851; surgical out-patients, 2,732; ophthalmic out-patients, 1,652; cutaneous out-patients, 559. Total, 8,794. Number of visits of out-patients:—medical, 9,672; surgical, 5,460; ophthalmic, 13,104; cutaneous, 1,520. Total, 29,756. By reference to the report of the Superintendent, it will be seen that although the number of patients treated has increased 33 per cent. for the year, the proportion of deaths is lower than ever before in the history of the hospital, being 7 3-10ths per cent. This fact, considering the number of severe cases treated, is very gratifying, and is a strong proof of the skill and fidelity of the Board of Physicians and Surgeons.

**AMERICAN MEDICAL ASSOCIATION.**—The following is a portion of a circular we have received:

*Meeting at New Orleans, May 4, 1869.*—I am authorized by the Atlantic and Mississippi Steamship Co., of St. Louis, to say that they will carry physicians and their wives to attend the meeting of the Association, at the following rates, viz.:—From St. Louis to New Orleans, each passenger, \$20.00. From Cairo to New Orleans, each passenger, \$18.00. From Memphis to New Orleans, each passenger, \$15.00. Returning—from New Orleans to Memphis, each passenger, \$15.00. From N. Orleans to Cairo, each passenger, \$18.00. From New Orleans to St. Louis, each passenger, \$20.00. The Company start a first-class steamer from St. Louis every 48 hours, Sundays included, and the usual time from St. Louis to New Orleans is about six days, and from Cairo to New Orleans about four and half days. Passengers can go on any of their boats at the above rates, which include meals and state-rooms. The steamer which will, however, take down the great body of physicians wishing to travel by the river, will leave St. Louis at 5 o'clock, P.M., on Wednesday, the 28th of April; Cairo on Thursday evening, after the arrival of the afternoon train on the Illinois Cen. R. R.; and Memphis on Friday evening, reaching New Orleans from Monday noon to Tuesday morning.

JAMES F. HIBBERD, M.D.,

Richmond, Ind.

**INTERNATIONAL PHYSIO-PATHOLOGY.**—To definitively settle the question of the seat of aphasia, it is proposed to institute a comparison between the American brain and that of other nations. If the organ of speech-making be where it has lately been claimed to be, the left anterior lobe of Brother Jonathan's brain ought to show something special in the way of development.

AN inquiry into the death of the patient at the Worcester Infirmary from the administration by mistake of carbolic acid as an enema has taken place. The case seems to have been one of pure carelessness on the part of the dispenser, who, having neglected to make the prescription up on the day on which it was ordered, dispensed it on the following day from memory, and at haphazard put on the bottle the name of the deceased. At a special meeting of the governors, a resolution was adopted, with but two dissentients, to the effect that the deceased patient's death had been caused by the gross negligence and misconduct of the dispenser, and recommending that he be prosecuted for manslaughter. There can be no doubt, however, that the chief cause of the accident was the ambiguous meaning of the word "injection."—*London Med. Times and Gazette.*

**THE FIRST MEDICAL WORK IN THIS COUNTRY.**—Thomas Thatcher, the first minister of the "Old South Church," Boston, Mass., was the author of the first medical treatise printed in this country.

DR. PAGET has been re-elected to represent the University of Cambridge in the General Medical Council, for a period of five years.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—The following communication has been received:—Diseases of the Jaws.

**PAMPHLETS RECEIVED.**—Report of the State of the New York Hospital and Bloomingdale Asylum, for the year 1868.—Remarks on Dr. Sayre's Paper entitled "A New Operation for Artificial Hip-joint, in Bony Anchylosis." By Louis Bauer, M.D., of Brooklyn, N. Y.—Proceedings of the American Pharmaceutical Association at the Sixteenth Annual Meeting, September, 1868.

**DEATHS IN BOSTON for the week ending Saturday noon, March 27th, 120. Males, 53—Females, 67.**—Accident, 2—anaemia, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 7—bronchitis, 1—consumption, 23—convulsions, 2—croup, 9—debility, 2—diarrhoea, 1—diphtheria, 1—dropsy of the brain, 4—epilepsy, 1—erysipelas, 3—scarlet fever, 7—disease of the heart, 5—hamorrhage, 1—hip disease, 1—disease of the kidneys, 1—disease of the liver, 2—congestion of the lungs, 4—inflammation of the lungs, 7—measles, 1—cerebro-spinal meningitis, 1—old age, 6—paralysis, 3—peritonitis, 2—premature birth, 4—puerperal disease, 3—scrofula, 1—suicide, 2—teething, 1—tumor, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 47—between 5 and 20 years, 8—between 20 and 40 years, 25—between 40 and 60 years, 19—above 60 years, 21. Born in the United States, 82—Ireland, 30—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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## Original Communications.

### DISEASES OF THE JAWS.

By THOMAS WATERMAN, M.D., Boston.

I.—*Naso-pharyngeal Polypus. Extirpation preceded by Temporary Displacement of the Superior Maxilla.*—B. F. F., æt. 39. A polypus of the left nasal fossa has been steadily growing for four years. It is visible just within the anterior nares, can be felt behind the soft palate, and can be seen by raising the palate with a spatula. It is hard and firm to the touch, does not readily bleed, and is not accompanied by deafness. Its point of origin is plainly from the posterior part of the nasal fossa. The left side of the nose is distended by the polypus, giving to the face the characteristic expression accompanying similar growths.

In view of the size, and obviously fibrous character of the growth, as well as its inevitable tendency, no other mode of removal than its direct excision at its point of origin seemed admissible, and this could be effected only by removing the upper jaw in a way and to an extent sufficient to expose the whole nasal fossa.

*Operation.*—A vertical incision was made from the nostril through the upper lip, and the cheek dissected up freely from the bone. The maxillary bone was then sawed horizontally across just below the floor of the orbit, from its outer border to the nasal fossa; the intermaxillary suture was divided by bone-forceps, the mucous membrane of the hard palate having been previously incised along the median line. A broad chisel inserted into the cut made by the saw depressed the bone, fracturing it posteriorly at its connection with the palate bones. By this displacement and without any further detachment, the origin of the polypus could be easily reached; the growth, which consisted of many firm lobules, was cut and torn away from the sphenoidal bone into the cells of which it had penetrated. The point from which it grew was then thoroughly swabbed with Squibb's liquor ferri subsul-

phatis, care being taken not to bring it in contact with the cut surfaces of the displaced bone. No ligatures were required. The polypus being removed, the bone was replaced and held in position by a silver wire twisted around the incisors on either side of the median section, a cork wedge was placed between the posterior molars, and the lower jaw bandaged firmly against the upper.

On the ninth day after the operation the patient was out of doors, on the eleventh an attack of erysipelas confined him to his bed again for a fortnight, but with no detriment to the progressing union of the jaw, which was perfected sufficiently to permit the removal of the wire on Oct. 18th, five weeks from the date of operation (Sept. 14th). On Oct. 28th, he was discharged from the Hospital by his own request. He had been able for ten days or a fortnight to chew meat with the teeth of the affected side, so firm was the union, and there was no deformity of his face, the trifling scar of the lip being invisible under his moustache. Two or three days before he left, a triangular piece of dead bone, about one inch long and one-third of an inch broad, came out through his nose. It appeared to be a portion of the palatal process of the superior maxilla.

Temporary resections, or osteoplastic resections, as they are termed in Europe, are characterized by the displacement of a bone still partially held in place by the soft parts; and by replacement of the bone, which has been thus rendered movable, as soon as the extirpation of the tumor is complete. The traces of the method by which the surgeon obtained access to the tumor are thus effaced.\*

The result of these procedures, as well as that of complete excision of the upper jaw, illustrates the extent to which operations may be successfully practised upon the bones of the face which protect and enclose important parts, but are independent of vi-

\* Rapport sur les Progrès de la chirurgie, Paris, 1867; in this work a history of the operation of temporary displacement of the upper jaw may be found, also in the Sydenham Year-Book of Medicine and Surgery, 1862, pp. 271 and 295.

tal organs. The particular operation under consideration is undoubtedly a valuable resource in many cases hitherto requiring a still severer mutilation, but as shown in the case next reported it does not admit of universal application. The improvements of modern dentistry are available for the diminution of much of the deformity entailed by the entire removal of the superior maxilla; an artificial jaw of vulcanite not only restores the dental arch, but obviates the unsightly falling in of the cheek usually consequent upon this operation.

II.—*Pharyngeal Tumor. Ectirpation preceded by Resection of Superior Maxilla.*—J. S. I., æt. 33. Fourteen months since a tumor of the size of a hen's egg, springing from the vicinity of the left tonsil, was removed by the *ceraseur*. It was thought at the time to be probably malignant, but his recovery from the operation was rapid, and on examining his throat no trace of its existence or point of implantation can now be seen. Within two months his ability to blow air through the left nostril has gradually ceased, at present it is entirely obstructed. The right nostril is also partly obstructed, and to an increasing extent. His deglutition as well as respiration is difficult. On introducing the finger behind the soft palate a growth having a broad surface of origin from the basilar process of the sphenoid bone fills the left half of the space between the base of the skull and the posterior nares. The finger can with difficulty be swept around the tumor on account of the small space unoccupied by it, but its attachment and the constriction of its base can readily be felt. No part of the tumor enters the nasal cavities, it cannot be seen from the anterior nares, nor is there any external or visible deformity. The tumor is symmetrical in shape, bleeds on touch as it also does spontaneously or from sneezing, is firm and hard, though friable, and is not painful or sensitive. There is no enlargement of the lymphatic glands. It was not inspected with the aid of the rhinoscope. As the disease was inaccessible for thorough and complete removal, without the excision of the left superior maxillary bone, neither the division of the soft palate (*Mann*) nor the partial removal of the hard palate (*Nélaton*) offering any chance of getting at the tumor, that operation was performed Oct. 12th, by the method usually described as of Velpeau. Through the aperture thus afforded the tumor was rendered visible as well as accessible, presenting a round convex mass an inch and a half in diameter furrowed by the septum of the

nostrils. It was removed with the aid of curved scissors, the bone from which it grew was cut away with the gouge, although not apparently diseased, and the surface thus denuded, as well as the soft parts adjoining, were swabbed with Squibb's liquor ferri subsulphatis. Two or three ligatures only were required.

The tumor under the microscope proved to be glandular rather than malignant. According to Dr. C. Ellis, "it was composed of rather small nuclei, with pale nucleoli somewhat larger than those usually found in glandular growths, but resembling them in other respects. A few doubtful lobules and some fragments of lobules were also seen. There were also found some fibrous tissue and a few minute blood-vessels. Very few, if any cells, and those of small size."

On the third day from the operation the stitches were removed from the incision in the cheek; on the ninth the patient sat up, and on the fourteenth he was discharged.

In February last he visited the Hospital wearing an artificial jaw which, exclusive of the palatine arch, was not more than one inch in diameter, so completely had the cavity left by the operation filled up. The scar on the cheek was invisible beneath his whiskers, there was no falling in of the cheek, dropping of the lower eyelid, nor paralysis of the face. The tone of his voice was not noticeably nasal, and there had been no recurrence of the tumor.

III.—*Hypertrophy of Gums. Partial Resection of Superior Maxilla.*—M. A. S., a young woman of average mental capacity, æt. 27. She has never been in good health. Her mother and her nurse say that the disease of which she is the subject is not congenital, but ever since the patient herself can remember she has been asked "what is the matter with your gums?" She has repeatedly had abscesses about the month, gum-boils, catarrh, and suffered most of her life from thick speech, deafness, difficult deglutition and dull pain in the jaws.

On examination the gums are seen to be hypertrophied along each side of the dental arches, not uniformly, but more prominently at some points than at others. The principal outgrowths are in front of the canine and incisor teeth in the upper jaw; in the lower jaw they occupy the place of the molar teeth on both sides. In the palatine arch of the superior maxillary bones two projecting excrescences, having their attachment anteriorly, pass backward, concealing the soft palate; in the cleft between them the uvula can be seen. On passing

the finger into this cleft it can be swept around slightly, the soft palate and a small part of the hard palate not being connected with the growth. These excrescences feel quite hard and non-elastic. The portions which project backward are somewhat movable, and can be pressed up so as to touch the palate.

At various times several teeth have been extracted, and the patient thinks that this has caused the growth to shrink somewhat, but the changes have been slight during the last eight years.

On the 26th of June all the teeth of the upper jaw were extracted, and at the same time those portions of the excrescences of the upper jaw which concealed the soft palate were sliced off. The patient was discharged on the 3d of July, and reentered the Hospital Oct. 7th. The disease in the meantime had remained quiescent.

Oct. 9th, the whole of the outgrowths were removed with the gouge, and the dental border of the superior maxilla sawed off. The wounds healed rapidly, and on the 21st of Oct. the patient was discharged, with the cut surfaces granulating in a healthy manner.

The rarity of the disease has led me to report this case, the interest of which centres in the peculiarity and infrequency of such an hypertrophy, rather than in the result of the operation.

I find but three recorded cases of this disease, one by Prof. Gross,\* one by Mr. Pollock,† and a third by Mr. Heath,‡ occurring under the care of Mr. Erichsen, in Univ. Coll. Hosp. In the first two cases the disease was congenital, and returned to some extent after removal. A very remarkable specimen of this disease presented itself in the person of a female of feeble intellect, covered with a remarkable hairy growth, who was exhibited by a showman in this city some ten years ago under the name of "Bear Woman." The hypertrophy of the gums was even more conspicuous than in the recorded cases. It is a little singular that Mr. Pollock's case was characterized by an extraordinary pilous development, and the patient a subject of epilepsy. Dr. Gross's patient was a stunted and feeble-minded boy.

Under the microscope the disease presented a purely fibrous growth, without myeloid cells, distinguishing it from epulis, with which, however, it was little likely to be con-

founded, neither the general aspect nor the mode of its growth bearing resemblance to the distinct masses and interdental origin of that affection.

The gross appearances of hypertrophied gums resemble the disease called lampas, occurring in the horse. The latter, however, is an inflammation of the gums, propagated to the bars of the roof of the mouth, and rising to a level with and even beyond the teeth. It usually subsides without treatment, or only requires slight scarifications.

IV.—*Tumor of the Lower Jaw from a misplaced Wisdom Tooth. Operation for its removal.*—A colored woman, æt. 41, ten years ago noticed an enlargement of the lower jaw on the left side, near the angle in the region usually occupied by the molar teeth. No permanent molars had ever appeared on that side, and it was the patient's conviction that there never had been any deciduous molars. The enlargement of the jaw was principally of the alveolar border, and this finally grew to such a degree as to prevent bringing the teeth together. Under these circumstances, five years ago a portion of the tumor cartilaginous in density was shaved off. A new growth gradually replaced what was removed, and there is now an enlargement of the entire bone, firm, dense, inelastic, slightly irregular in outline, sensitive on the inside to touch, and whenever hard morsels are bitten upon. It is hardly of sufficient size to be visible from the outside, but can readily be felt, and it projects inwards about to the same extent. The jaw is perhaps double its natural thickness. For the last six months the tumor has been the centre of a radiating neuralgic pain constantly present, and so severe as to make the patient willing to undergo any operation likely to give her relief.

Removal of a portion of the continuity of the jaw being attended by disability and disfigurement, it was thought best to perform a temporizing operation, and excise so much of the tumor as could be from the inside of the mouth. In chiselling away the bone, which was dense and vascular, a well-formed wisdom tooth was found impacted in the jaw bone in a horizontal position. As this was deemed to have been the source of all the suffering as well as to constitute the tumor, no further steps were taken toward its more thorough extirpation. The operation was followed by complete disappearance of the pain. The wound rapidly granulated, and at the end of three weeks the patient was discharged at her own request.

\* Gross's System of Surgery, 2d edition, Vol. II., p. 534, fig. 331.

† Holmes's System of Surgery, Vol. IV., p. 18.

‡ Injuries and Diseases of the Jaws, London, 1868, p. 189.

The crown of the tooth removed was found to be enveloped by the membranous sac originally lined with enamel pulp, which having fulfilled its function had become detached from the surface of the enamel, and now remained as a capsular investment of that portion of the tooth. The sac thus formed was not distended with serous fluid into a "dentigerous cyst," as occasionally occurs, and an instance of which was reported in 1863,\* but retained its original proportions. The case must therefore be looked upon merely as one of impacted misplaced tooth, and the specimen is interesting from its deep-seated position, and as exhibiting the *pathogenesis* rather than the *pathology* of dentigerous cysts, in a manner all the more satisfactory from the rarity with which an opportunity is afforded for their study.

The subject of dentigerous cysts has been treated of at length by Mr. Salter.†

(The preceding cases of more than usual interest occurred in 1867, at the Massachusetts General Hospital.)

## TWO CHRONIC ULCERS OF THE STOMACH. PERFORATION OF ONE, AND DEATH AT THE END OF EIGHTEEN DAYS.

By CHARLES E. HOSMER, M.D., of Waltham.

The patient was an ice dealer, æt. 26 years, and of good general health. Served in the civil war for four years, and was well during that time, excepting an attack of intermittent fever. Had also occasional cramps in the stomach, with vomiting of a greenish fluid. About two years ago, while pushing a large block of ice up an inclined plane, it slipped; and, as he caught it with his pole, the end of this last came against the pit of his stomach, or near there. He was obliged, on account of the injury, to stop work; and, 3ij. of senna having been prescribed, he took, by mistake, the same amount of the tincture of arnica. Soon after this he vomited a dark substance that is said to have looked like blood; and from that time he was never well, though he attended to his business until the fatal perforation occurred.

There was generally free vomiting of a yellowish fluid about two hours after eating; without the food, but with relief, and usually without much nausea. Sometimes a day or two would pass without vomiting;

and several times he thought he saw blood in the matters vomited. Oppression at the stomach was nearly a constant symptom, and there was quite often a pain that he compared to the "cutting with a dull knife," with an occasional cramp for an hour or two; and, when going about in his wagon, he would lean forward and press upon the epigastrium. His appetite was quite good, and his bowels rather costive. In his general appearance he did not look sick, though he had lost flesh.

Early in the night of Feb. 9th perforation took place, and he died on the 28th at 7, P.M. The pain at first was intense, and was very greatly increased by motion; afterwards it was very considerably diminished, but occurred in paroxysms, and towards the last it was rather dull. Pressure, however, was very tolerably borne, and as well over the epigastrium as elsewhere. At first there was great pain, also, in the left shoulder, but this gradually subsided at the end of a week. To relieve the pain, there was given throughout about three grains of morphine daily, by enema. Tympanites was slight at first, but became very great after the ninth day, and so continued till death, causing great dyspnoea. Respirations from 30-50 per minute; and the pulse, which was about 70 at first, rose at last to 120.

On opening the peritoneal cavity, there was a large escape of offensive air. The organs were quite firmly adherent; and there was some lymph upon the surface, with about five quarts of pus. The small and large intestines were much distended with gas; and the liver was pushed very much upwards and backwards. The stomach was collapsed, and contained two or three ounces of a viscid secretion. In the anterior parietes, near the small curvature, and about midway between the two orifices, was an ovoid, shallow, chronic ulcer, about  $1\frac{1}{2}$  inches by  $\frac{3}{4}$  inch in diameter; and in the base of this last a perforation, of a rather oval form, about 3 lines in diameter; with thin edges, and looking as if a piece had been punched out. Almost directly opposite, and in the posterior parietes was a second chronic ulcer, more defined and deeper than the other, of an elongated form, and measuring  $1\frac{1}{2}$  in. by  $\frac{5}{8}$  in. This last had penetrated quite through the parietes of the organ, and perforation was only prevented by strong, old adhesions to the omentum. About the other ulcer there were no adhesions. Thorax not examined.

The very unusual time that the patient survived the perforation in this case was

\* Trans. Boston Soc. for Med. Improvement. Vol. V., p. 101.

† Guy's Hosp. Reports, Vol. V., 3d Series, p. 319 and Holmes's Surgery, Vol. IV., p. 32.



remarkable, as death usually occurs within forty-eight hours; and it may be a question whether the external injury above referred to, or the arnica, could have had anything to do with the formation of the ulcers, inasmuch as there were some gastric symptoms before these suspected causes occurred.

## ENUCLEATION OF THE EYEBALL.

By P. PINEO, M.D., of Hyannis.

Mrs. S., aged 64, was seized with inflammation of the right eye, in March, 1868. In July, 1868, I was first called to see her, at which time she was suffering much pain and discomfort from a staphylomatous condition of the cornea and inflammation of nearly all the tissues of the eyeball. The patient had been attended by an "Eclectic Doctor" until after the disorganization of the eye and loss of sight, and I failed to get any intelligent description of the character of the inflammation in its earlier stages, or of the progress of the disease. She probably had had irido-keratitis, with sloughing of the cornea, producing the condition present.

For the conjunctivitis, a collyrium of borate of soda was prescribed; for the pain, a solution of sulphate of atropia. She became more comfortable, yet suffering more or less, until January, 1869, when an increase of pain and inflammation occurred.

On again being called, I found distention of the eyeball, inflammation of its tissues, with severe pain, not only in the disorganized eye, but in the orbit of both eyes, with photophobia of the sound eye, which symptom had always been present more or less. Evidences of sympathetic trouble in the sound eye were unmistakable, promising to involve the loss of sight.

February 10th, I punctured the corneal cicatrix, giving exit to a purulent discharge, which gave some relief from the distention, although the pain and distress continued. At length I advised and strongly urged, what at first had been suggested, removal of the eyeball.

On the 20th inst., enucleation of the eyeball was done, with the assistance of Dr. George, of Centerville. The conjunctiva, which was greatly thickened, was first divided close to the cornea; the tendon of the internal rectus was then divided, and successively the other recti and the oblique muscles, and with a pair of small curved scissors the optic nerve was cut close to the globe, when the eye rolled from its

socket, leaving the capsule of Tenon unharmed. Scarcely a drop of blood was lost, except that which came from the engorged conjunctiva.

The patient slept quietly, under the influence of ether, during the operation, and, when restored to consciousness, very little discomfort was felt in the orbit. She rested well the following night—better than for many weeks before.

On the 21st inst. she was perfectly comfortable and happy, with no discomfort about the eye, and promising a speedy recovery.

The after-treatment consists in a single thickness of cotton cloth over the lids, kept wet with cold water.

March 12th.—The orbit and lids healthy, and ready for an artificial eye. The patient has had no pain since the operation. The remaining eye is quite tolerant of light, and gaining strength.

February 22, 1869.

[We are indebted to Dr. J. B. S. Jackson for the following additional particulars.—Ed.]

This specimen was exhibited in a fresh state to the Society for Medical Improvement. Dr. Coolidge having examined it, he subsequently reported that the retina was thickened but soft to the feel, of an opaque white color, detached from the choroid coat except at the entrance of the optic nerve, and extending in a funnel-shaped form about as far forward as the ciliary process. The same form of disease occurs in the brain, and was first described by Virchow as glioma. In its nature there is nothing malignant. The choroid showed some signs of inflammation. The capsule of Tenon was inflamed and adherent to the sclerotic; this last being healthy.

In a note received by Dr. Jackson, March 27th, Dr. Pineo states that on cutting open the eye, he found it "filled with a pus-like semi-fluid mass."

## PIN WORMS, AND THEIR HOMOEOPATHIC TREATMENT.

By CHARLES E. BUCKINGHAM, M.D.

THE *New England Medical Gazette* for February, 1869, contains an article on Entozoa, which is a light not to be carelessly placed under a bushel, if its merits be equal to the Editor's comments—"one of the most important discoveries of modern medicine."

Let us have the whole history, for it took two to discover it. Mr. E. C. Haserick, of

Lake Village, N. H., "claims to have made a new discovery in regard to the manner in which some intestinal worms in horses and other animals are propagated. He has observed that light and air are necessary to accomplish it, and the female avails itself of such means, finds its way to the lower portion of the rectum, protrudes the vulva beyond the sphincter ani, while it holds on, or grasps the mucous membrane within and discharges its eggs around the anus; these are hatched, in the short space of five or six hours, and make their way into the rectum. He has applied many remedies to destroy the larvæ, but without success, until he made the simple application of lard around the anus. This he has found efficient in every case. By renewing the application two or three times a day for a week the surface is completely protected, and the egg has no nidus for development; consequently, as the worm is short-lived, in the space of eight days the animal is freed from parasites. Encouraged by his success with animals, Mr. Haserick, supposing worms in children to be propagated in the same manner, recommended the use of lard in the same manner, and, as he reports, with equal success. I shall endeavor to investigate this matter, in a manner that will prove the truth or fallacy of this statement. Some observations which I have already made induce me to believe Mr. Haserick is right about the propagation of worms in animals."

The writer of the article then goes on to show that he has investigated and proved. *Veni, vidi, vici.* Listen.

"After many attempts I succeeded, on the 15th, 16th and 17th of January, 1869, in satisfying myself that the method by which the oxyuris vermicularis propagates is by depositing the ova outside the sphincter ani, and around the edge of the anus, where, in the space of a few hours, the worms are hatched and make their way into the rectum. In order to ascertain if the ova are thus deposited, I directed the parents of the child afflicted with the oxyuri, a few minutes after a paroxysm of itching and pricking pain in the rectum had subsided, to take a piece of damp black silk, and wiping the anus of the child with it, fold it and send it to me. To the naked eye nothing appeared on the silk more than a little mucus. This I placed in a microscopic cell, and under a one-fifth objective found that, on several occasions, I had succeeded in obtaining large numbers of the eggs, thus confirming the observation of Mr. Haserick."

The comments of the editorial depart-

ment ought to come next, but as they do not in the *Gazette*, let me ask you to allow them to follow in the JOURNAL. They are as follows, the italics being yours and not his.

"One of the most important discoveries of modern medicine, and which, *if fully substantiated*, will eradicate a very troublesome as well as common affection, was presented at the meeting of the Boston Academy of Homœopathic Medicine, on January 25, 1869.

"Dr. D. G. Woodvine exhibited, under the microscope, some beautiful specimens of the ova or eggs of the oxyuri, or common pin worms. *By careful investigation, he has ascertained that these eggs require light and air to hatch them.* For this purpose, they are always deposited outside of the sphincter ani, where in a very few hours they are hatched, and the worm then makes its way into the bowel. *Now, by keeping the parts for an inch or two around the anus covered with a thin layer of lard, the oxyuri cannot deposit their eggs, and as the life of the animal does not exceed seven days, they can be wholly exterminated in the most severe and troublesome case in that time. The amount of suffering which may be saved by this simple discovery is incalculable.*"

And now for the application. If a patient of Dr. W. is suffering from pin worms, his anus must be protected by keeping the parts for an inch or two around covered with lard for seven days; and to follow up the treatment with the certainty of success, he must refrain during the same period from breaking wind and sunning his backside.

## HAY FEVER OR ROSE COLD.

(Continued from page 128.)

This coryza comes on in irregular paroxysms, in which the eyes are red and watery, the lids, as she assures me, *very red, and perceptibly swollen.* At the same time they, as well as the nose, are the seat of an insupportable itching. Her sister has suffered from chronic urticaria for three or four years.

In spite of the irregularity of the paroxysms, I advised the sulphate of quinine, and, if this should fail, a course of the Bourboulé (alkaline) waters. Should I see the patient again, I shall apply local treatment to the pharynx, by a solution either of nitrate of silver, tannin or perchloride of iron. The tincture of iodine which I generally employ seems to me less indicated on account of its action on the naso-lachrymal mucus.

In this observation there are several very remarkable circumstances. The direct and collateral hereditary tendency appears to indicate a diathetic origin. The two sisters belong to a gouty stock; chronic urticaria and granular pharyngitis are not rare in gouty families. In the case of our patient, the coryza succeeded to the urticaria, and when we reflect upon the red and itchy swelling of the eyelids, coming on by fits and starts, we recall the urticaria which preceded the coryza, and which, like this, was characterized by an intermittent itchy congestion of other parts of the cutaneous surface.

We remember that the sister also has urticaria, so that it is no more than natural to infer a diathetic tie between these affections which succeed one another in the family and the individual. From a comparison of their characteristics, it appears not improbable that these affections may have a common origin, if not a great analogy in form.

The second form is the asthmatic; the coryza being only the prelude, and sometimes a very short one, to a dyspnoea in which the nervous element plays the principal part. The naso-ocular catarrh, which apparently constituted the whole disease in the first form, has but a very secondary rôle, or at least is thrown into the background.

I can do no better than to quote the following observation given me by the patient herself. I have thought it best not to modify the form, so expressive in its simplicity.

"In 1838, when 19 years of age, and in the most perfect health, I made a six weeks' visit to a cousin living in Normandy, on the sea-shore. There, as a pleasure, I took prolonged sea-baths, in rainy or cold weather, swimming and fatiguing myself without any thought of my health. Finally, these imprudences ended in a severe inflammatory fever, after which my voice broke entirely, obliging me, definitively, to my great disappointment, to give up singing. All the winter I suffered, and was obliged to communicate all my wishes by writing. In the spring I recovered my health perfectly, and continued well until our departure for Egypt in July, 1843, four months after my marriage.

"If I mention this first trouble it is because I have always, either rightly or wrongly, regarded it as the starting point of my Egyptian affection, which has remained by me eighteen years.

"We arrived at Alexandria August 4th,

1843, I being then about three months pregnant. On the next day I commenced to suffer from a feeling of suffocation; I was red, panting, my pulse was feeble and very rapid. This we attributed to the fatigue of the voyage, to a cold which I had caught in traversing Malta to change boats, to my condition, and to the excessive heat which we found at Alexandria. But on the night of the fifth I was in such distress from the suffocation and the accompanying palpitation that my husband was obliged to run to the consulate for a physician.

"Dr. X., a German, the only one who enjoyed general confidence, being away, he was referred to another who had a certain reputation. This one upon his arrival, although informed of my pregnancy, bled me freely, relieving me to such an extent that I thought myself cured. The next morning, however, the oppression, the palpitation, a whistling sound with respiration, and a dry, convulsive cough, came on almost instantaneously, and so severely as to drive me almost out of my senses.

"The physician bled me again from the other arm, but less abundantly than before, affording me relief for another twenty-four hours. At the end of this time, not knowing what to do for me, he called another physician, a countryman of his, in consultation. They gave me potions and pills of assafoetida, and sent me into the country, where I was carried on the 9th or 10th of August, and what I suffered there is beyond my power of expression. At times I was delirious, and stole out in the night to find upon the terrace the air which I craved. The physician came every day, sometimes morning and evening, and every two or three days accompanied by his brother physicians. Once again they bled me, and in three or four days' time 175 leeches were applied to me. I have since learned that they wished to provoke a miscarriage as my sole chance of safety. These men considered me in the last stages of consumption, and supposing me ignorant of their language, held their consultations in my presence, showing me their thoughts and giving me a poor idea of their science. At length, in the first part of September, the trouble passed gradually away, and I rapidly recovered my health without having miscarried. Toward the end of this year, as I was very heavy, and the blood appeared to trouble me, the physician insisted upon bleeding me again. He had ordered but a small quantity of blood to be taken, but the Greek barber opened the vein so largely that the opening could not be closed, and I had a

terrible fainting spell. This kept me in an enfeebled condition until my confinement, which was natural, although my poor little girl came into the world so weak and delicate that we kept her but four months. I should say that not being familiar with the language of the country, I was unwilling to trust her to an Arabian or Negro nurse, but exhausted both of us by nursing her myself. We lost her on the 16th of May, and I dragged on, feeble and careworn, but without suffering, until the 8th of June.

"The 8th of June I woke up with a feeling of oppression, and the symptoms which I had remarked the preceding August returned almost instantaneously; these were always the same, only more or less intense during three months of the year, from the 8th or 10th of June until the 10th of Sept., throughout thirteen years' residence in Egypt. During these three months my pulse was constantly very feeble and rapid. The symptoms rapidly decreased in intensity from the 25th of August until the 10th of September. The entire month of July was a continued paroxysm of sufferings, which were at times intolerable. I clung to the posts of my iron bed, in my struggles for breath; I could never stretch myself out at full length. Seated in my bed or an arm-chair, unable to support a close-fitting garment, coughing till I thought I should die, and yet preferring the cough to the deep sense of suffocation, which was the cause of slight fainting attacks; spitting large quantities of mixed blood and phlegm, or, when the cough gave way to the suffocation, of bloody froth. *I must not forget to say that the first symptom of my attack was a sneezing without a cold for a cause*; then came the whistling respiration, and a general distress increased by the dejection caused by the periodical return; finally the suffocation and palpitation came on together, so that I have never been able to judge which was the cause of the other. Toward the end of July each year my respiratory efforts became so violent as to raise my left shoulder to the level of the ear, making upon the whole left side of the chest a sort of cushion on which I leaned my weary head. No appetite at all. I lived nearly three months upon breakfasts of thin soup, a little cold beef tea at noon, a slice of watermelon, a cooked peach or a few grapes in the evening. I had a horror of meat or bread, and, indeed, so great were my sufferings if I ate a little more than I have mentioned, that I preferred to suffer from hunger.

"In the course of the month of April I

began to be irregular; either too soon or too late, and during the whole duration of the attack there was an entire suppression or irregularity. Sometimes twice a month, but nothing to speak of, water rather than blood. By the last of September everything had resumed its natural course. I slept soundly, gradually gained flesh, and got through the winters so well, that for many years we were always hoping that I might escape the next attack; but the disease was inexorable.

"All sorts of treatment were tried upon me; pitch plasters sprinkled with cantharides and tartar emetic, and covering my shoulders and back, from the neck to lower part of the kidneys. These were left on five days, and removed only when intolerable. My bleeding back was dressed with simple cerate. The second year I had two, the third I had one, and they only added one trouble to another.

"Tartar emetic ointment upon the breast, and croton oil upon the breast and back also, did me more hurt than good, because they irritated my nerves. Quantities of flying blisters were applied, one permanent upon the left arm; another year the cautery and dry cupping. I refused cupping and scarifying, because there was no snap-lancet to be had, and I could not bear the idea of the cuts made by the barber with his razor. I also refused a moxa which a French physician wished to apply to the middle of my chest. Another physician wished to place a seton in the back of my neck, but I was unwilling. I cannot say how many preventive treatments I underwent. Milk diets, strengthening diets, stimulating diets, cod-liver oil, ass's milk, turpentine, sulphur, a great deal of belladonna, morphine, lactucarium, wild cherry, assafetida, fumigations of all sorts, sinapisms.

"One summer, in the absence of our good Dr. Schledhanss, I was treated by Clot-Bey, who watched me as a curious phenomenon.

"He applied bladders filled with ice over the heart to stop the palpitation, and gave me no nourishment but lemon ice cream. I was very much relieved during forty-eight hours, but the reaction was terrible, and ever since that time I have had a pain in the left side, at times confining me to my bed.

"One thing alone had afforded me some, but not perfect relief; that was a journey to Cairo by boat. This voyage, however, I was enabled to make but five times, my husband's business being sometimes too pressing, the water in the canal Mahmoudy,

which leads to the Nile, being too low at other times. When I did reach the river, and especially when we arrived at Cairo, in spite of the torrid heat I breathed less painfully, and was able to lie down a little.

"Of the painful remedies the only one which afforded me any permanent relief was the thorough cauterization of the throat by ammonia. It was Dr. Burguières who tried it the first year that we knew him in Egypt. When we went to live at Cairo, I besought our physician each year to employ it, but he did the operation, in spite of himself, so slowly and timidly that the effect was much less satisfactory. As for the rest, I soon exhausted the different resources of medicine. The moist, hot climate was too much against me.

"At Paris, in the different leaves of absence which my husband took, in the island of Rhodes, where we lived three years, in France upon our final return, in the country in the first place and afterwards at Paris from the eighth to the 20th of June of each year, I experienced a regular return, although in a very much milder form, of this curious disease.

"Eighteen-years of this suffering had so nearly used me up, that, apart from my summer paroxysms, I was in a state of perpetual malaise and sometimes of utter prostration.

"It was at this time that I came to Dr. Gueneau de Mussy, who had the idea of employing quinine as a preventive, about the middle of May. This disconcerted the enemy, and the fatal month of June was safely passed. During a month only, from August 15 to September 15, I had a slight return of the trouble, a little cough, a little oppression and slight palpitation, more feebleness than suffering, in fact.

"I am, then, full of confidence for the coming year.

"I have forgotten to say that my paroxysm was accompanied not only by a contraction of the throat, but by a more or less complete loss of voice.

"The contraction of the throat persisted even during the winter, when my health was the best. The gesture as though untying an imaginary cravat was habitual with me; I was fatigued by the sense of discomfort which always increased toward evening. It is only since the end of last winter that I am nearly free from this, and it is only since that time that I have had breath enough to blow out a candle without a sort of suffocation."

[To be continued.]

VOL. III.—No. 10A

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

DEC. 14th.—*Internal Strangulation caused by a Fibrous Tumor of the Womb.*—Dr. JACKSON reported the case and showed the specimen.

The patient was under the care of Dr. John Flint, who furnished the following history of the case. She was an unmarried woman, 44 years of age, and always more or less feeble and dyspeptic. For the last eight or ten years she had been habitually constive, and subject to frequent attacks of severe colicky pain and obstinate constipation, with nausea, vomiting and great distention of the abdomen by flatus. These attacks lasted for a day or so, and were only relieved by free evacuations from the bowels. On the 8th of December Dr. F. was called, and found her suffering intensely. The abdomen was perfectly unyielding from the great distention, and slightly tender. Skin hot and dry; pulse 120-130; tongue dry and corrugated; great thirst and restlessness; frequent eructations and occasional vomiting. The acetate of morphia and fomentations were ordered; but as there was no relief in two hours, two drops of croton oil were given; followed by injections. As there was still no relief, the morphia was given through the night, and the next morning two drops of the oil were repeated. This last moved the bowels slightly during the day, but without any relief. The pain had never been so severe; and until her death, which occurred on the morning of the 12th, she was kept under the influence of morphia and ether.

Menstruation had never been irregular, nor unusually painful.

The examination was made by Dr. John Homans, who found the cavity of the pelvis completely filled by the enlarged uterus. The organ was of a rounded form, and contained in its posterior parietes a single, large, lobulated, rounded and remarkably defined tumor. The fibrous structure was not very distinct to the naked eye, but there was no appearance of arrested growth. The cavity of the organ was elongated, and its structure changed as usual in such cases. The large intestine upon the left side was as large as the stomach; and, the left ureter being pressed upon, there was atrophy of the kidney, with hydronephrosis.

DEC. 14th.—*Peculiar Form of Fibrous Tumor of the Uterus.*—Dr. SHATTUCK reported the case.

The woman was 58 years old, and had had a tumor in the pelvis for 23 years. For several years she had been very large, and for the past two months exceedingly distended. She never had any hæmorrhage from the uterus, and died after being confined to the bed about a week, suffering much from pain and distention.

The following description of the tumor was given by Dr. JACKSON:—

"It was situated in the posterior parietes of the womb, measured 8 by 10 inches across the cut surface, was generally pretty well defined, and at the fundus came close to the peritoneal surface. In structure it was generally tough, not distinctly fibrous, and had a pearly translucency; the appearance being peculiar, and unlike any of the ordinary forms of degeneration, for the most part. In its substance was a defined cyst about five inches in diameter, filled with serum, polished upon the inner surface, and containing a considerable quantity of uniform, opaque, rich yellow, firm substance, adherent to the cyst, and in the form of a reticulated mesh rather than a continuous layer. This substance suggested the idea of fat, but looked more like fibrin that had undergone some peculiar change. Other small serous cysts were also found; and I would say that, although they are often enough spoken of, I have scarcely if ever seen them before. There was also a cyst, two or three inches in diameter, that contained a fresh clot of blood, and yellowish, translucent fibrin that resembled stiff glue. This last I have several times seen in aneurismal sacs, and have an idea that it has been described as an amyloid transformation. There was also another cyst, filled with grumous, dusky-red clots, some of the translucent fibrin, and that was about four inches in diameter. This effusion of blood into a fibroid tumor of the womb is something that I have never before met with nor heard of; and I cannot but think that it had some pathological connection with the disease that was found in the cavity of the organ, and in that of the peritoneum. In the anterior parietes of the womb was a second fibroid tumor, 2 inches by 1 inch in diameter, whitish, dense, and somewhat degenerated. The cervix and os were healthy. The body of the organ was enlarged, and measured eight inches in length; and about midway there arose from the inner surface, and by a small peduncle, a soft, vascular, and perfectly encephaloid-looking

mass that must have been originally nearly as large as the fist. Nothing could look more like fetal brain; and I cannot but think that it was a malignant growth, though the microscopic appearances did not accord with this idea. The ovaries were healthy.

"Dr. Ainsworth, who made the dissection, states that the parietal and visceral surface of the peritoneum was covered thickly over with soft, vascular, pedunculated growths, from a very small size to that of a pear. The peritoneum was also ecchymosed; and its cavity contained about eighteen pints of serum, with a bloody fluid in the pelvis. I have several times met with ascites, complicated with and undoubtedly caused by soft, cancerous-looking growths that arose in large numbers from the peritoneal surface, and without disease of the organs; and I am inclined to think that the present was a similar case, though I did not see any of the growths referred to."

JAN. 11th, 1869.—*Case resembling Cerebro-spinal Meningitis.*—Dr. MINOT reported the case.

The patient was a little girl, 7 years old, who complained, Jan. 24th, '1868, of not feeling well, and had slight epistaxis; she walked out, however. In the night she vomited, and the next day was delirious, becoming stupid and drowsy in the evening. That night and the following day she was very delirious, talking incessantly. The pulse was 160 and the respirations 50 in the minute. An eruption of small, round, purple spots was thinly scattered over the chest, shoulders, arms and belly. They varied in size, from a mere point to four lines in diameter, but a few were much larger; they remained permanent on pressure. The tongue and throat were dry and brown. In the evening there was copious epistaxis. On the 28th she remained in the same condition. Pulse 168. She refused to swallow, and nourishment was given by enema. She was noticed to be deaf. In the evening the pulse fell to 144. On the 29th she was completely deaf, but there was less delirium; she began to recognize those about her. The spots continued as before, the tongue was coated, but moist, she slept well. The pulse in the morning was 144; evening, 120. Jan. 30th, the child was still completely deaf, but had recovered her consciousness, and began to take nourishment. The spots had disappeared. It was noticed that her head was drawn back, as she lay, and there was tenderness about the back of the neck. There had been no convulsions, rigidity of limbs

or paralysis. From this time she steadily improved, and might be considered convalescent on Feb. 6th. The head was less drawn backward, Feb. 1st; and became straight on Feb. 5th. The deafness continues complete to the present time, although all the other symptoms have disappeared. The treatment consisted in turpentine for the first few days, followed by bromide of potassium; with plenty of nourishment. For several days the medicines as well as the food had to be given by enema.

JAN. 25th.—*Eyebrow at Arch of Pubes. Artificial Rectification.* DR. J. P. REYNOLDS reported the case.

L. X. had the perineum moderately torn in her first confinement. There was partial external prolapse. Dr. Reynolds attended her in her second confinement, and after her getting up, she had a very successful operation performed by Dr. Hodges, the wound uniting throughout by first intention; the external prolapse disappearing. Great solicitude was felt as to the effect of the third labor upon the restored perineum. Early in the evening, at the time of rupture of the membranes, the head being still high in the cavity, the upper fontanelle was central in the pelvis, the frontal suture easily traced in its whole extent, the left ear near the symphysis, the point of the lambdoid suture reached with great difficulty on the right side of the pelvis and very high up. The descent of the frontal end of the head continued, without much gain from efforts at replacement made by the fingers. At half past ten, the left eyebrow having been felt at the arch, the vectis was applied, bringing the occiput promptly round to the pubes. Labor was soon completed without injury to the perineum. It had been decided before the labor, in accordance with Dr. Hodges's wish, to make free lateral incisions if the perineum seemed in danger, and this was accordingly done, though, as Dr. Reynolds has since thought, unnecessarily.

JAN. 25th.—*Severe Varicella in the Sixth Month, with threatened Uterine Action; Recovery.* DR. J. P. REYNOLDS reported the case.

A woman about six months advanced in her second pregnancy had been greatly fatigued by riding forty miles in the cars on the fifth instant, and by some succeeding imprudent exertions. On the eighth she had severe pain in the back and head, with constitutional disturbance, and on the following day an eruption of varicella of extreme severity appeared on her, and also on her child two years old. After the first day the pulse was of only moderate frequency, hardly rising above ninety-two,

and often scarcely accelerated, but the pain in the back continued with great severity for nearly a week, so as to require the exhibition of from one-half to two-thirds of a grain of morphia in suppository during the night to control it. There was much nausea and occasional vomiting, perhaps fairly attributable to the opiates employed. Painful contractions about the fundus frequently recurred, and the patient complained often of a sense of constriction around the abdomen, and of a feeling of weight, as of a stone, in it. Great anxiety was felt as to the result to the child of these symptoms, which continued with varying severity from ten to fourteen days. The patient is now able to sit up, is free from pain; while the foetal movements are vigorous and pulsations of the foetal heart clear and strong. The continuance of so free an administration of opium for several days perhaps involved some additional risk to the child, but there seemed to be no escape from the necessity of resorting to it.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, APRIL 8, 1869.

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OUR readers and ourselves may congratulate each other that a former Editor of this JOURNAL occupies to-day the place he so ably filled a few years ago.

BERLIN, February 20th, 1869.

MR. EDITOR,—As you have expressed a wish to hear from me, I have thought that you may be interested in a short account of the Medical School of Berlin.

No one can have a correct idea of this, without understanding that it is only a branch of the great University where everything is taught which is considered worth teaching, not omitting dancing, fencing and riding.

The educational corps includes about one hundred and seventy ordinary and extraordinary professors and private teachers. These are selected from the best scholars of Germany, some having already acquired celebrity at other universities in the country. The names of some men are associated with several centres of learning. The Assistant or Privat Dozent who has shown marked ability at one place is promoted to some higher position at another, maybe again removed to fill the highest place at a third, and may finally, perhaps, return as professor to Berlin, where his first laurels were earned—*genuine laurels truly earned*. Although the idea of an hereditary nobility is far from being outgrown in this country, a genuine nobility is not overlooked. The profession is re-

ceived at Court, but the honor is considered so great, so limited by personal claims, that it is not shared by the wife.

This distinguished body of men is divided into the faculties of theology, law, medicine and philosophy.

In the medical department there are forty-eight instructors of different grades. It will, therefore, readily be understood that all branches receive proper attention. Some of the lectures are given in the large building, formerly the palace of Prince Henry, brother of Frederic II., presented by Frederic William III. to the University. Other departments occupy separate buildings, constructed for the purpose, that devoted to anatomy being, perhaps, three times as large as our Medical College. It contains a very fine amphitheatre, and rooms for the prosecution of the study of every branch of normal anatomy. In the same square are the large buildings occupied by the School of Veterinary Medicine.

On the opposite side of the street, in the grounds of the Hospital La Charité, stands the Pathological Institute, under the direction of Prof. Virchow. It contains two autopsy and two lecture rooms, laboratories for microscopical and chemical investigation, and a pathological museum. The course of instruction is very complete. On Mondays, students are taught by Virchow or his assistant the proper method of making autopsies. That there is a right and a wrong way is made very apparent to the bystander, and painfully so to the student to whom has been granted the privilege of the drill. On Wednesdays and Saturdays, Virchow devotes two hours to the exhibition and description of specimens, upon a few of which most of the time is spent. It is impossible to describe the accuracy of observation and philosophical interpretation of morbid changes which characterize these lectures. One sees the working of the same mind which years ago reduced to order the chaos of pathological anatomy. On three mornings in the week practical instruction is also given in pathological histology, in the same large, pleasant, well-lighted room, where there are seats for about a hundred students, with their microscopes. A third regular course on pathological anatomy is given four times a week. Here the whole subject is systematically taught.

Clinical instruction in medicine is given in La Charité by Profs. Traube and Frerichs, the patients being examined in lecture rooms before the class, and also visited in the wards at other times.

In all departments the instruction is thoroughly practical, using the latter term in its best sense. The prominent idea seems to be that of giving the student the best possible opportunity for personal observation, and teaching him to use the fruits of this in the most advantageous manner.

The University of Berlin has been described because it has been less frequented by physicians than that of Vienna, where the same general plan is pursued, though the number of short private courses at the latter place offers great inducements to those who, in a limited time, wish to study some special branch or branches. We have in both of these great schools a complete system, which seeks the best men and gives them every facility for the prosecution of science and the communication of it to others. In both, the students must first be fitted for their work and then submit themselves to thorough examinations before receiving certificates of proficiency. It is easy to understand why every civilized nation should be represented in the audience of the lecture room, and why we should be indebted to Germany for so much that is valuable in medical science.

Yours very truly,

C. ELLIS.

**HOUSE PHYSICIAN FOR THE INFANTS' HOSPITAL, NEW YORK.**—Our *confrère*, Dr. Dunster, Editor of the *New York Medical Journal*, who is also Secretary of the Medical Board of the Infants' Hospital, New York, writes us in relation to the approaching choice of a house physician for that institution (advertised in this JOURNAL), that "the appointment is an important one, and demands a *first-class man*, and the inducements offered are, I think, sufficient to secure such a one. The selection of the incumbent by *concours* has never been tried in any of our public institutions, but the plan must commend itself as the only true and just method."

In a "Note on the so-called carbolic acid, or coal-tar creasote," presented at the last annual meeting of the American Pharmaceutical Association, by EDWARD R. SQUIBB, M.D., the Doctor says:—

It is pretty well known that the creasote of the common market of late years has been made from coal tar, and that it consists mainly of phenyl-alcohol and cresyl-alcohol, often called carbolic and cresylic acids, in not very uniform proportions. . .

Of late, more critical examination has shown that these liquids are not acids at all, in the common acceptance of the word acid, and that they must, for the present at least, be considered as alcohols. The coal tar creasote of the markets at the present day must be considered practically as a mixture in variable proportions of phenylic alcohol or phenyl-alcohol and cresylic alcohol or cresyl-alcohol, with small and unimportant proportions of other organic compounds, the first or phenyl-alcohol being commonly in the largest proportion. The dark colored oily liquids met with in the markets, under the name of crude carbolic acid for the lower grades, and impure carbolic acid for the better grades, is this same mixture of these liquids in varying proportions, but commonly containing more or less tar, oil, &c., and is there-



fore in reality coal tar creasote. It is now not only inaccurate but positively incorrect to call this mixture (or either of its constituents) an acid, and the longer it continues to be so called the more difficult it will be to change it.

Solutions of the impure mixture were tried by Dr. Squibb upon the cryptogams which grow in the form of mildew on the brown stone fronts of houses where they are shaded from the sun, as in areas. The cryptogams were destroyed. The cresyl-alcohol was then separated from the phenyl-alcohol, and each tried separately. The cresyl-alcohol was found to be the more destructive of the mildew, in the proportion of at least two to one.

The comparative action of the two upon the sense of taste was then investigated. Ten persons were selected besides Dr. Squibb to act as tasters—these experimenters being chosen as having gustatory nerves corresponding in sensibility pretty nearly to a common standard. It was found in "prospecting" for tasters, that comparatively few persons could recognize a mixture of one part common alcohol in ten thousand parts of distilled water; but that many would promptly detect one part in five thousand. In no single instance did cross-examination, by change and confusion of bottles, and other efforts, succeed in materially altering or interfering with the decision made. The results lead to the conclusion that to the ordinary sense of taste the cresyl-alcohol is from five to ten times stronger than the phenyl-alcohol.

#### NOTES FROM L'UNION MEDICALE.

DR. FORT in a surgical memorandum remarks that among the numerous causes of facial neuralgia is one which authors do not notice, but which frequently occurs. This cause, almost certain to be a source of error to practitioners, is a lesion of the buccal mucous membrane, behind the molars, and produced by the evolution of a wisdom tooth. The functional disturbances brought about by this slight lesion are so intense as to lead sometimes to suspicion of more serious trouble.

M. Forget in a criticism of M. Fort's remarks, says it is very true that the evolution of wisdom teeth produces peculiar disturbances; and that the fact has already been pointed out by others. In a memoir published in 1828, on the various deviations of which the lower wisdom teeth are susceptible, Dr. Toirac, says M. Forget, reports six cases bearing on this point. In one of these cases the patient was subject to slight attacks of inflammation for a year after the left lower wisdom tooth began to appear. His cheek, not very much swollen, was extremely sensitive to the slightest pressure, while deglutition was almost impossible. The left tonsil was swollen, and the soft palate was very red. The posterior third of the crown of a wisdom tooth was found to be covered with a fleshy band, consisting of the

gum, which was of a violet color, painful, and slightly ulcerated.

A worse case was reported by Dr. Desirabode, in 1851. A man of 25 years committed suicide, and it was supposed on account of violent dental neuralgia. At the autopsy it was found that the left lower wisdom tooth was directed horizontally from before backwards, the roots being in apposition with the base of the ramus, and its crown applied to the posterior molar, upon which it exerted strong pressure. The gum was greatly swollen. No other lesion existed in the dental apparatus.

M. Forget cites a still more aggravated case. A man 26 years old had been for a long time affected with neuralgia referred to the alveoli of the molar teeth on the right side of the lower jaw. The entire ramus was tumefied, and to a considerable degree. Impeded articulation; swelling of the whole *masseter* region, so to say; hyperostosis of the coronoid process. M. Maisonneuve, having exposed the bony tumor, applied the trephine in search of the tooth. The result not being satisfactory, resection of the jaw was done, at the alveolus of the first molar, and the condyle was disarticulated. The bone having been divided by a section parallel to its axis, M. Forget found several purulent cavities which had burrowed into its substance. It was an instance of medullary osteitis of the ramus of the jaw extending to the interior of the condyle, which was hollowed out, by a little purulent cyst opening close to the articular cartilage. The severe symptoms and the structural lesions had for their point of departure the abnormal enlargement of the wisdom tooth, which was shut up in the base of the coronoid process, and rising scarcely to the height of a millimetre above the level of the alveolus which it had hollowed out for itself. The tooth was of twice the normal size, the crown of it abutting against the neck of the adjoining tooth, in such a manner that in order to take rank in the dental arch, it would have been under the necessity of displacing from below upwards the molar which opposed its upward growth. It was this obstacle which compelled it to develop in the interior of the bone.

We drew off the above cases under the impression that it might possibly help the general practitioner, now and then, out of an obscure diagnosis, to be apprized of them. Since doing so, we received the communication—published in to-day's issue—entitled "Disease of the Jaws," and containing an account of a case similar to some of the foregoing.

M. Personne, pharmacist of the Hôpital de la Pitié, in a paper read before the Imperial Academy, on the use of essence of turpentine in poisoning by phosphorus, gave the results of three sets of experiments made by him on dogs. All the animals of the first series to which he administered

phosphorus alone, died at the expiration of different periods. Those to which he gave the phosphorus, and then a few hours subsequently the essence of turpentine, evinced the phenomena of intoxication, but did not succumb. Finally, the dogs of the third series, to which he administered essence of turpentine immediately after the phosphorus, showed only slight indisposition. According to the author, the explanation of these results is to be found in the property possessed by essence of turpentine of preventing phosphorus from burning at the expense of oxygen, whether in the open air or in the animal economy.

**SVAPNIA AND SWEET QUININE.**—A few weeks since Mr. Frederick Stearns, of Detroit, Mich., had the politeness to send us a sample of Dr. J. M. Bigelow's purified opium, or svapnia, so called; also of "sweet quinine," said to be the invention of Dr. Wm. Bullock. Mr. Stearns is at present the sole manufacturer of these articles. Not being ourselves a judge of drugs, we turned our samples over to the President of the American Pharmaceutical Association. Since then, we have seen in nearly all of our American and Canadian exchanges, notices of these preparations, but have foreborne to echo these notices until we should meet with the formulæ for making the articles. This we have not yet succeeded in doing; nor are we aware that any formulæ have been issued. But we are now able to present a pharmaceutical estimate of the substances themselves from the pen of the Editor of the *American Journal of Pharmacy*:—

"Svapnia is a trade name applied by Frederick Stearns to the purified titrated extract of opium, suggested by Dr. J. M. Bigelow, of Detroit. The merits claimed for it are, first, that it is uniform in morphia strength; second, that it contains only the alkaloids morphia, codeia and narceia, combined with meconic (and perhaps thebolactic) acid. How far the manufacturers will be able to keep the composition uniform we do not know. If they can do what they claim to do, the preparation certainly merits attention. Neither the label nor the accompanying wrapper give the actual morphia strength, which, as it is said to be uniform, should be given. It is to be regretted that a substance so costly as opium should be rendered yet more so by making it a specialty. In our next we propose to give some further remarks in relation to this preparation, meanwhile hazarding the opinion that, medicinally, it is not better than the deodorized tincture of the Pharmacopœia.

"Sweet quinine, another novelty, is, according to the wrapper, quinia molecules coated with glycyrrhizin. That is to say, the alkaloid quinia, as precipitated from the sulphate, intimately admixed with the sugar of liquorice. It follows that it is necessary to avoid the use of acid or spirituous solvents in connection with sweet quinine, which immediately develop the bitterness—one by salifying the alkaloid, the other by dissolving it.

The quality of liquorice to mask the taste of quinine, aloes, &c., has long been known to some persons, and we know one physician who has long prescribed it with this view. There is no doubt that the opinion of Mr. Harrop, at page 117 of this number, is correct, that the glycyrrhizin in commercial extract is altered by heat, and that fluid extract of liquorice root is better than a solution of the extract for mixtures. We should think Tilden's extract of liquorice root, made in vacuo, would be far superior to the imported for this purpose."

**ULCERATION OF THE OS UTERI TREATED BY THE APPLICATION OF CARBOLIC ACID.**—Dr. Roe has been for some time in the habit of using carbolic acid as a local application in cases of ulceration of the os and cervix uteri, and has found it to yield results superior to any other topical treatment which he has tried. He has used it in cases where the whole round of other applications has been unsuccessful, and always with the most happy results. He agrees with Dr. Roberts, of Manchester, who last year drew the attention of the profession to the subject, in considering it a caustic, which, as regards its severity, may take intermediate rank between the nitrate of silver and strong nitric acid, besides acting as a disinfectant, a matter of no small importance in these cases. Dr. Roe does not use it in as strong a form as Dr. Roberts, and does not consider the strong acid necessary in very superficial ulcerations. A mixture of one part of the strong acid with two of olive oil seems to answer all ordinary purposes; but in cases of very deep ulceration the use of the strong acid may be called for. In such cases Dr. Roberts desires the acid to be liquefied by the addition of a very small quantity of water. This has not been found to answer the purpose in the Coombe Hospital, but it has been there discovered by Mr. Weir, that the addition of a few grains of camphor will dissolve the acid, and will, moreover, prevent it again becoming solidified, even at a freezing temperature.

The application of the carbolic acid to the os uteri is best effected by soaking a little cotton wool in the liquid, securing it by a string, and introducing it through a speculum, the string being left depending out of the vagina, and the patient being directed to pull it away on the second day. This procedure is repeated in ordinary cases about twice every week. If it be desired to apply the acid to the cervical canal, it may readily be done, by passing into it a gum elastic catheter smeared with the carbolic oil.

*Dublin Medical Press and Circular.*

**A CASE OF SUPER-FÆTATION.**—The *Weser Zeitung*, of Feb. 20, has something more about the singular birth at Schlieven, we lately referred to. It quotes from the *Dantzig Gazette* the following communication from the health commissioner, Dr. Preuss, of Dirschau:—

"To the many questions addressed to me from many quarters in regard to the singular birth at Schlieven, announced on the 6th inst., I may here reply as follows:—The facts contained in the report alluded to are correct. I was summoned on the first of February to Schlieven, to give my ad-

vice in the case of a child born the day before of a young shepherd's wife, with the aid of a midwife. It was a girl, in other respects strong and hearty, under the extremity of whose *os sacrum* (*Kreuzbeinende*) was a swelling of the size of two fists. Vigorous movements were plainly visible on the surface of this tumor, and within I felt the members of a fetus, which, from its size, would in ordinary cases be reckoned at five months. It was evidently a double creation. So far the case belonged to the very rare, but could not be considered unique. Rokitsansky speaks of it as follows in the first volume of his *Pathological Anatomy* (pp. 62, 59): 'Double creation by engrafting (*Einpflanzung*.) Cryptodidymus (Guolt) so-called fetus in fetu. A larger, complete fetus bears at some place under the skin or in the cavities of the body a second, smaller and incomplete.' In this class evidently belongs the case before us. What is novel, and, so far as my knowledge goes, unnoticed in literature, is the fact that not only the child which has been carried its full term is alive to-day, but the fetus also has in the eleven days after birth further developed and palpably increased in size, and that the movements in the tumor have increased, and at present are very strong. They cannot be motions of the viscera, transferred through the aperture, as if this were so, such motions would be observed in every hernial sac. The tumor is now four and a half inches long, three and a half inches wide and high, pear-shaped; the head lies underneath on the left, the rump above on the right. The junction has a circumference of eight and a half inches. Further particulars as to the progress of this case are deferred."—*Medical and Surgical Reporter*.

EXTRACTS from a paper read before the New York County Medical Society, Feb. 8th, 1869, by THOS. ADDIS EMMET, M.D. :—

Division of the cervix, for the relief of dysmenorrhœa and sterility, has been a favorite practice for years past with many of the profession. Scarcely any operation in surgery, however, has been proposed, where so little judgment, as a rule, has been exercised, and where so frequently its indiscriminate performance has even amounted to malpractice. A reaction has slowly taken place in the views of the profession regarding this operation, but from one extreme we may fall into the opposite error, as we have certain conditions of the uterus which cannot be relieved otherwise than by a division of the cervix.

Experience has taught us that both dysmenorrhœa and sterility exist frequently from causes having no connection with flexure or even with the uterus itself; that dysmenorrhœa is not always present with a flexure, while impregnation sometimes takes place when this deviation is well marked.

I have observed instances of long toleration of this instrument [the intra-uterine stem-pessary], and without bad results following its use, in the hands of skilful men, yet I have never known an instance of permanent rectification of a flexure resulting from loss of substance in the uterus, while it is my belief that as a consequence from its use, pelvic cellulitis is the rule and not the exception. I beg that I may not be misunderstood, for I have stated that I regard,

as a rule, a curvature of the uterine body as being a temporary result of disease, the effect and not the cause; therefore a mere division of the cervix under any circumstances cannot be relied on as a sole means of relief. And, moreover, that it is against the indiscriminate practice of the operation that I offer my protest, in resorting to a means, which, without judgment as to its propriety, or the necessary preparatory treatment before its performance and proper care afterward, is so frequently attended with the most serious results. I repeat, experience has taught us that a simple flexure above the vaginal junction will gradually disappear if a proper treatment of the uterine disease can be instituted, and that in this condition it is always an exception to the rule where it becomes necessary to resort to surgical means.—*American Journal of Obstetrics*.

FEMALE DOCTORS.—*The Feuille Médicale de St. Pétersbourg*, in noticing the invasion of the professional schools in that city by women, says that "since the nomination of Madame Kashevarova to the doctorate of medicine, a crowd of women are occupied daily in the dead rooms of the Academy on the dissection of bodies. The occupation is certainly not likely to render the women engaged in it very attractive, and can hardly be considered conformable to the mission of the wife, whose whole energy ought to be concentrated in the bosom of their families. They desert their proper function and consecrate themselves to labors which necessarily estrange them from their domestic duties. To this consideration must be added the hindrances which the simultaneous concourse of pupils of both sexes interpose to serious scientific occupation."

*The Union Médicale* says:—"It is obvious that this promiscuity of the sexes in our schools must produce strange results. But the partisans of free trade in female medical studies may reply, 'Why not have special schools for women?' In fact, there are such in America; but truth obliges us to say that they are not very flourishing even in the country in which professional liberty is pushed to the degree of eccentricity."—*Dublin Medical Press and Circular*.

BOSTON DISPENSARY.—The following are the statistics of this institution for the six months ending March 31st:—The number of new patients at the Central Office has been 6869, of which 4626 have been medical cases, and 2243 surgical. The number of new patients in the Districts during the same period has been 4645, making the total number treated 11,514. Whole number of patients since October, 1796, 364,246. Whole number of patients since July, 1856, 245,344. Whole number of prescriptions since July, 1856, 522,068.

SAMUEL A. GREEN,

April 1, 1869.

Supt.

WE encounter the sad announcement of the decease of Professor ROBLEY DUNGLISON. His magisterial position as author of the *Medical Dictionary* we all have used renders an elaborate obituary notice unnecessary. *Si quaeris monumentum circumspice*.

## Medical Miscellany.

It is known that the catheterization of the air-passages in asphyxia neonatorum is especially recommended, as it removes foreign substances inspired with the first respiratory attempt, the entrance of which into the trachea and bronchi prevents the proper performance of the respiratory act. Dr. Billmann, of Neustadt, reports (*Aerztl. Intelligenzblatt*, No. 49, 1867) a case of intense asphyxia in which he used immediately the catheter, without first employing those means usually recommended in such cases, such as cutaneous irritation, baths, compression of the abdominal walls, &c. He introduced a thin male catheter into the larynx of the child, and inspired strongly. With a bubbling noise, a thick, viscid, and somewhat bloody mucus was drawn into the opening of the instrument, followed immediately by a short, deep inspiration. Already after four or five repetitions of this method, the respiration became gradually regular, and the child cried, yet a loud rattling still continued. This rattling disappeared each time after the removal of the mucus by means of aspiration with the catheter, but it returned after a few aspirations of the child, additional quantities of mucus coming up from the minuter to the larger bronchi. After the catheter had thus been employed for some time, the breathing became perfectly regular and easy.—*American Journal of Obstetrics*.

ON THE FLUID EXTRACT OF LIQUORICE ROOT AS AN EXCIPIENT FOR QUINIA. By JOSEPH HARROP.—Dr. Harrop remembers having on several occasions added as an adjuvant powdered extract of liquorice, as per prescription, to quinine mixtures, but which, as far as he could judge, did not much conceal the bitter taste of the medicine. About the same time he had occasion to take some quinine, and on looking around for something to overcome its bitterness, he tried the fluid-extract of liquorice-root, which he thought would at least be nicer than the powdered extract, when he found it to completely conceal the taste.

The inference then may be that the glycyrrhizin, said to be the source of the sweet taste in the root, and described as a transparent yellow gelatinous substance, overcame the bitterness of the quinine, and that the principle is, in part, destroyed or impaired by the process of manufacture in producing the commercial extract.

Might not the fluid-extract or a concentrated tincture be used to more completely cover the taste of aloes in the tincture, of which Dr. Wood says "liquorice answers the purpose imperfectly?" also in other preparations having an unpleasant taste?—*American Journal of Pharmacy*.

DR. LIVINGSTONE AND THE PARIS ACADEMY.—The Academy of Sciences proceeded last week to the election of a Corresponding Member, in place of Dr. Dallas Bache, for the Section of Geography and Navigation. Three candidates were nominated: Dr. Livingstone for London, M. Cialdi for Rome, and Dr. Benjamin Gould for the United States. Out of 52 votes Dr. Livingstone

received 48 suffrages, Dr. Gould 3, and M. Cialdi 1; and Dr. Livingstone was accordingly elected by an enormous majority.—*Dublin Medical Press and Circular*.

THE TRICHINA IN SWITZERLAND.—The journals have announced recently the invasion of the Canton of Tessin, by trichinosis. Six persons having died of it in one family, M. Paganini, a veterinary surgeon, investigated the fact. He submitted portions of human muscle and of pork to microscopic examination, and found both of them crowded with a multitude of the trichinae.—*Ibid*.

THE Académie Impériale de Médecine, on the 16th of March balloted for a Member at Large, and elected M. Coste.—*Ibid*.

THE connection of W. A. Hammond, M.D., with the *New York Medical Journal* ceases with the March number. The Journal will continue under the editorial supervision of Dr. E. S. Dunster.

ALL Essays to be submitted for award of prizes at the next meeting of the American Medical Association, should be forwarded to the undersigned in time to reach him by or before the 25th of April.

S. M. BEMISS,

Chairman Committee on Prize Essays,  
New Orleans, La.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic; 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communication has been received:—Preparatory Medical Education.

DIED.—At New York, 30th ult., Alexander H. Stevens, M.D., in the 80th year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, April 3d, 91. Males, 41—Females, 50.—Accident, 2—aneurism, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cancer, 1—consumption, 16—convulsions, 2—croup, 1—debility, 1—diarrhoea, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 1—scarlet fever, 11—typhoid fever, 3—disease of the heart, 1—intemperance, 2—disease of the kidneys, 1—congestion of the lungs, 6—inflammation of the lungs, 8—marasmus, 2—old age, 2—peritonitis, 1—premature birth, 1—puerperal disease, 4—scalded, 1—scrofula, 1—disease of the spine, 1—tumor, 1—unknown, 10—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 11—between 20 and 40 years, 25—between 40 and 60 years, 12—above 60 years, 12. Born in the United States, 58—Ireland, 22—other places, 11.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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## Original Communications.

### PREPARATORY MEDICAL EDUCATION.

By SAMUEL KNEELAND, M.D.

THE medical profession, no less than others interested in the more general branches of what is commonly considered a liberal education, have doubtless read with pleasure and profit two articles in the *Atlantic Monthly* for February and March, 1869, developing the initiatory steps and the desirable consummation of what is there very properly styled the "New Education." Prominent among the institutions established to secure this rational and practically useful education is the "Massachusetts Institute of Technology," whose full and instructive fourth annual catalogue, embracing the names of more than 170 students, has been recently brought to the notice of the medical profession of the State.

Having carefully examined this catalogue, we felt, probably with many other physicians, that, had this school been established a quarter of a century ago, we should have been spared a tedious and comparatively useless toil of six or eight years up the hill of *classical* science, to find nothing on the top but a few dried roots and sapless branches of the same tree of knowledge, whose flowers and fruits we might have gathered by more accessible paths far below, had we turned aside from the old beaten road. Believing that many of the best years of the medical student's life are wasted in the ordinary course pursued in the preparatory schools and colleges, let us see if the "New Education" does not afford the much desired escape from the classical Juggernaut before whose wheels generation after generation of physicians have blindly prostrated themselves.

Something more than the examination of the tongue, the feeling of the pulse, a superficial knowledge of drugs, the treatment of mere symptoms, and the ability to prescribe in the hieroglyphics of a dead language, are now demanded of the educated

physician. He must be able to trace the symptoms to the hidden cause, from a knowledge of chemistry and physiology, without which no rational system of hygiene and therapeutics is possible.

The old method of education trained the mental faculties without special reference to the end in view, and under it we studied in an aimless manner, involuntarily throwing away the wheat and storing up the chaff. The new or technical education, dealing only with living realities, and throwing aside mental training merely as such, develops the powers of the individual in the path he is to pursue in life, teaching him at the same time precision of thought, habits of observation, and method and purpose in his studies. We must recognize that the practical training of the technical school is far better for the physician than the literary culture of the college; we have not time in our fourscore years to throw away a tenth part on the dead languages, which we know will never be of any use to us compared with the exact sciences which we now have the means of pursuing.

Bearing in mind, then, that medicine is a science, or rather a combination of sciences, to be pursued with the method and the spirit of philosophic reasoning, we may now ask ourselves, what do the technical schools offer to the medical student, as preparation for his profession, better than the time-honored colleges? As before intimated, chemistry, organic and inorganic, lies at the foundation of the science of medicine; in this direction does modern physiology point, to its recent discoveries must we ascribe most of the great improvements of the day, and from its future researches must we expect the elevation of therapeutics to a place among the exact sciences. The few lectures of the college course, without opportunity for experiment, are practically valueless to the student, who comes to the medical school without any knowledge of the principles of chemistry, and therefore unable fully to avail himself of the chemical course, even were it from the lips of a Davy or a Faraday; and this failure of the student to attain any useful knowledge of

chemistry is attested by many physicians who have attended the courses in the technical schools, finding out too late that their early training failed to give them this necessary foundation for their professional education. In the technical schools, which receive pupils at the same ages, and for the same time (if necessary) as the colleges, each student is provided with his desk and apparatus, and is required to perform, under the supervision of the professors, a large number of experiments selected to illustrate the laws of chemical action and the properties of all the important chemical elements. When a knowledge of the elements is obtained, analysis, more advanced laboratory practice, organic chemistry, and researches of special utility for the practice of medicine, successively and in properly graduated steps, follow. We think it is no exaggeration to say that a student who has passed two or three years in this course at a school like that of the Institute, and who has not even commenced the study of medicine, could teach nine out of ten medical graduates principles of chemistry as applied to medicine of which they were either ignorant, or of whose application in their profession they had not even dreamed.

Of similar benefit to the medical student is the course of instruction in theoretical and experimental physics and mechanics given in the technical schools, by which the principles of natural philosophy, embracing light, heat, electricity, galvanism, sound, the mechanical forces, &c., are followed in their applications in determining the physical properties of solids and liquids. This knowledge, ignored by the medical profession as a body, and cultivated only by the few among them who by taste or accident are led to its pursuit, is equally neglected in the colleges. Of its great advantage to the physician the experience of almost every one in the profession will bear ample testimony.

The great attention paid to the various kinds of drawing in these schools is a very important feature, and one which is totally neglected in the college system. The skilful use of the pencil, and of water colors and India ink, with and without the use of instruments, which enables the student to acquire a method of accurately delineating objects, gives him a training of the hand and eye, which will be of great practical value to him as a physician. The ability to use artistically a piece of chalk is an accomplishment which we have often lamented was not possessed by some of our best

lecturers on anatomy, physiology, surgery, and pathology.

A year or two before entering a technical school, may profitably be spent in the study of Latin, with enough of Greek to make the student familiar with the terminology and derivation of ordinary scientific words; but the course of six to eight years in studying the structure of these languages, and in becoming familiar with their literature, to the exclusion of the exact sciences and the modern languages, seems to be for the physician an inexcusable waste of time. Great stress is laid in the "New Education" on the study of French and German, as no one in this age, in any department of science, can hope to keep up with the progress of knowledge without an acquaintance with these languages. At the same time the English language is not neglected, and the pupils are constantly drilled in the structure and peculiarities of their native tongue, and are taught to express their thoughts with precision and elegance. In addition, the important study of construction and materials may be pursued to that extent that the physician may correct prevalent errors in building, warming, ventilating and lighting dwellings, prolific causes of disease and death; and may know how to arrange the sick room, and especially crowded hospitals and the homes of the poor and ignorant, with the best chance for the recovery of the patients. The principles of geology, zoölogy and physiology are also taught, rendering the student familiar with methods of study, which he is to pursue more fully in his preparation for the business of his life.

Having suffered from the inability to pursue a rational preparatory course for the medical profession, let us no longer be content to move slowly along in the old classic ruts, pursuing a round-about and tedious road, beginning anywhere and ending wherever chance decides. Here we have opened before us a new and direct avenue, beginning when the pursuit in life is determined upon—followed without useless and time-wasting incumbrances—and ending with the purpose gained, viz., the acquirement of a sound medical education. We are fast dividing into *special* practitioners, each with a favorite branch of the profession in which we aim to be *special* skilful; let us begin at the beginning in this matter, and study *special*ly, from our youth, what is to fit us for a medical practitioner.

Let us, then, confine our study of the dead languages to a year or two, and afterward, instead of wasting four more in a literary

institution, devote our time in a technical and practical school to the study of chemistry, physics, drawing, the modern languages, and such branches of natural science as will best fit us for the rational practice of medicine and surgery.

### CASES OF SUDDEN DEATH.

By EDWARD WARREN, M.D., of NEWTON LOWER FALLS.

IN the 60th volume of this JOURNAL, I gave an account of a case of sudden death, attributed to imprudent bathing, which occurred on the 17th of March, 1859. It was that cold March weather, in which the chill is rendered more penetrating by the melting of ice and snow. The boy, who had bathed with others in a pond, ran and overtook an open milk-cart, on which he rode for about two miles, talking freely to the driver, when he was seized with violent spasms of the muscles of the face, extending to the whole body, and resembling those produced by an overdose of strychnine. He was carried into a farmer's house close at hand; the usual remedies were immediately resorted to, but without any effect, and he died within an hour and a half from the commencement of the attack, the rigidity of the muscles passing off, and the whole body becoming entirely relaxed shortly before death. He was buried on the fourth day after, the body, according to a daily paper, presenting a remarkably fresh appearance, the color hovering about the lips as if life still lingered.

On the 18th of March, 1867, nearly the same day of the month, and the same hour of the day—about four in the afternoon—I was called to the same house where the former death took place, to see a young woman who had done housework in the family for some months. She was about 20 years of age, and of a rather full habit. She had gone through a severe fever at her home in New Hampshire the winter previous to this; and had been working to pay the expenses thus incurred. She had now been home upon a visit, and returned the 10th of March to Weston.

She left home very early in the morning, taking some provisions with her to eat in the cars, and rode about fifteen miles in an open sleigh to the railroad. In the cars she rode about sixty miles to Waltham, and from Waltham she was conveyed in an open sleigh to her abode in Weston, a distance of about four miles.

She arrived there in high spirits; had had a delightful visit; had paid her "Doctor's

bill" and other little debts. She said she was now ready to go to work harder than ever. She took a cup of warm tea, declining to take any solid food, as she said she had taken a sufficient luncheon in the cars. She then went up into her room, the chamber of a large, old-fashioned farm house, in which there was no fire. After some time the mistress of the house, fearful of the consequences of her staying so long in a cold room, called her several times, and, receiving no answer, went up to her. She was found lying upon the floor in a state of entire insensibility. Her clothes were wet through, apparently by a copious and involuntary discharge of urine. Help was immediately summoned, and she was brought down into the warm sitting room, where, until medical assistance could arrive, hot water was applied to her feet, and the other remedies employed which had been used in the previous case.

I found her in a situation the reverse of that described in the former case. In that instance, the aspect reminded me of the effects of an irritant poison, such as strychnine, while these symptoms resembled the effects of a narcotic. She was entirely unconscious. There was complete relaxation of all parts; the face was of a natural color, perfectly calm and quiet; the pulse very perceptible and regular; her whole appearance leading me to give a very favorable prognosis. I directed mustard poultices to be applied to the bowels and feet; the temples and whole head to be rubbed with a strong solution of ammonia, and ammonia and other stimulants to be given internally. Under these applications she seemed to revive, and several times raised her head and made efforts to speak, but immediately relapsed again into a state of entire *anéantissement*. On giving her a stimulating injection, a clay-colored discharge, of natural size and consistence, was obtained.

We pursued this treatment for about five hours, keeping up the friction of the limbs for the whole time; but without any good result. At the end of that interval, her state of unconsciousness continued; the whole body was of good warmth, the respiration moderate and regular, the pulse steady. Her whole appearance was that of a person in a quiet sleep. But from this sleep it had proved impossible to rouse her, the first favorable indications having gradually ceased. To make use of any more active measures I feared would only exhaust the vital powers remaining. I directed her to be placed in a warm bed, and

kept quiet, with the feeble hope that rest and the latent power of nature might do more for her than anything else.

About two o'clock in the morning, about four hours after I had left, I was called to visit her again, respiration and pulsation having ceased. When I saw her, I found no signs of vitality, except that the body retained its natural warmth, and the flexibility of the limbs.

The condition of the body in these two cases is that which is apt to occur in sudden death by lightning or by violence. As there have been some undoubted cases of recovery after the fact of death seemed certain, it might be a question whether, in cases like the present, a physician ought not to direct the body to be kept without exclusion from the air until actual signs of decomposition appeared. But in so doing, he exposes himself to the charge either of insincerity or ignorance in a case upon which every old lady feels competent to pronounce categorically. Many years ago, the question, "What are the signs of Death?" was brought up in the Boston Society for Medical Improvement. The proposer was absent, but Dr. John Ware remarked, "there are no signs of death," and the subject dropped. There was no reply.

In the first of these two cases, the boy had remained long enough in the water to be severely chilled; and the additional exposure of riding in an open wagon completed the fatal effect. Another boy, his companion in the water, walked home, and dropped down insensible in his father's yard. He recovered.

In the case of the young woman, the lethal influence was less powerful but more protracted. The morning ride, followed by stagnation of the circulation from long sitting in the cars, prepared the system for the result. Then the subsequent ride in an open sleigh, followed by going into a cold room after the circulatory action had been aroused by warmth, completed the fatal effect. So long as a hostile influence, like that of cold, acts steadily upon the system, the vital powers are strong in resistance; but let the cause be once removed, and the system is less prepared to sustain a second shock, though much milder. A recent English lecturer warns his hearers, that on the strength of their new convictions of the necessity of fresh air, they are in danger of forgetting the fatal effects of cold, which he says kills its thousands every week in winter. This, in the comparatively mild climate of England. It sometimes kills,

he says, by mere shock. It is a lethal influence which acts like an epidemic poison.

While upon the subject of sudden death, I may allude to two cases which occurred some years since, which show the difficulty that sometimes attends the prognosis.

About the year 1856, I was called in consultation one evening to a young woman of about 20, whom I had often attended. She was in a state of lethargy, from which she could not be roused. The attending physician informed me that she had applied to him in consequence of a violent pain in her face. He had given her some common remedy, I forget what, and thought no more about it until evening, when he was called to her in great haste, and found her in a state of insensibility. He had immediately given her a powerful emetic, which had operated very freely; and had then resorted to all the other methods within reach which are employed in such cases, but without any effect. I set in action an electro-magnetic machine, and kept up a pretty smart current from the spine to the extremities, alternately continuous and in shocks or jets. Her consciousness partially returned; she knew me, and was able to carry on some conversation, but sank again into perfect lethargy, and though partially aroused at times still relapsed.

After continuing the current for about four hours, in addition to other remedies, her condition appeared so unfavorable that, after consultation, we decided that her recovery was impossible, and that it would be useless to try any further measures. I left her, expecting her death to ensue in the course of the night. My surprise was great, the next morning, to hear that she had recovered her consciousness. I did not see her again during her illness, but I ascertained that on recovering sensibility she was quite blind. She was some days in recovering her strength, and after several days the blindness passed off. I always attributed the symptoms in this case to an overdose of aconite; but how or when given, was never known.

The second case did not terminate as favorably. Very early in the morning, I was called in consultation to see a young woman about 17 years old, in a state of stupor, from which she could not be roused. The attending physician informed me that she was recovering from an attack of pneumonia, and that he left, the preceding evening, two pills of a quarter of a grain of morphine each; one to be given at bedtime, the second four hours after, if the first was not successful in promoting quiet



rest. The first was successful; and on waking she appeared so much better that it was thought best to give the second. Whether from the effect of the pill, or from some unknown cause, a state of stupor came on, from which they could not rouse her. I had mustard poultices applied to the bowels and feet, the head bathed with a strong solution of ammonia, and a large dose of ipecac. administered, aiding the action of the emetic by irritating the fauces with a feather. Free vomiting was induced. She recovered consciousness, sat up in bed, and talked and laughed.

Supposing all the danger over, I recommended a cup of strong coffee to be prepared for her, to carry off the remaining effects of the opiate, and went home to breakfast. I had hardly reached home before I was summoned again in great haste. I found that the lethargy had returned. All our efforts now were ineffectual, and death speedily ensued.

#### GALVANISM AN ANTIDOTE IN POISONING BY GELSEMINUM SEMPERVIRENS.

By J. T. MAIN, M.D., Unity, Me.

BELIEVING the yellow jessamine to be a valuable remedial agent, and one that would be much more generally used and esteemed if it were not for the unpleasant, or even dangerous symptoms sometimes following its administration in medium doses, to individuals peculiarly susceptible to its influence, I think the following facts may be of interest:—

In the summer of 1866, I took, through mistake, one drachm of fluid extract of gelseminum sempervirens, and immediately started to see a patient suffering from paralysis. The patient resided some eight miles off, and before arriving I became nearly blind. Control over the upper eyelid was almost entirely lost. The flexor muscles of the hands and arms were paralyzed, while the extensors were nearly so. Sensation in hands and arms blunted, but not in proportion to loss of motion. My speech was somewhat affected. A very disagreeable sensation of the head was felt even before the muscles came under the influence of the drug, but my mind was quite clear.

In this condition I arrived at the house of my patient, and as I was incapable of using my hands (my legs did not suffer nearly as much), I directed the nurse to apply the galvanic battery to the patient, and as she was about putting the instrument

aside, I asked her to apply the poles to my hands, which she did, and I was instantly relieved. The relief received was not only instantaneous, but perfect and permanent.

I have tried the galvanic battery by way of experiment, several times since, upon those who were pretty well under the influence of gelseminum, and with like results.

#### SYRINGE FOR THE EAR, NOSTRIL, &c.

By J. RUSSELL LITTLE, M.D., Jamaica Plain.

A CONVENIENT syringe, for the ear, nostril, throat, &c., may be made on the plan of the chemist's wash-bottle, as follows:—Take a bottle of convenient size, with a wide mouth; fit with a good cork, which should be pierced with two holes on a line with each other, of a size to admit glass tubing No. 4 or 5 (this may be done with a proper cork borer, or with a brad-awl and round file).

Now take a piece of glass tubing, of size above mentioned, about five inches long, and bend it in the flame of a spirit lamp to a right angle, at about two inches from one end. Pass the short end through one of the holes in the cork. Another piece of glass tubing sufficiently long to reach from near the bottom of the bottle to one inch above the cork should now be passed through the second hole. Slip over the extremity of the latter tube a piece of rubber tubing, at the other end of which connect in the same manner a nozzle made of glass tubing drawn to a point in the flame of the lamp. The bottle being now nearly filled with fluid, and the cork and tubes adjusted air-tight, by blowing through the first tube a stream is forced through the second by the pressure of air on the surface of the fluid.

By fitting the spray tube in the place of the second an atomizer may be produced without the use of the balls and elastic tube generally used.

March 15, 1869.

#### HAY FEVER OR ROSE COLD.

(Continued from page 173.)

SUCH is the story of the disease, and it bears the stamp of truth. Thus, every year, at a certain time, she was taken with coryza and repeated sneezing; then succeeded an attack of asthma, lasting three months, with exceedingly violent paroxysms, more frequent during the night. There is no apparent family predisposition to the disease. Her father, who is still living, is not gouty. Her mother died very

young. As for herself, since her cure, she has several times suffered from pleurodynia, but can recall no other symptoms resembling rheumatism. Her son, who suffers from granular sore throat, has, during the whole summer, an obstinate coryza, more catarrhal than spasmodic, which leaves him in the autumn.

He inherited from his father a lymphatic element predisposing him to catarrh; but this catarrh returns at precisely the same epoch as the spasmodic asthma in his mother's case—a circumstance worthy of mention, since such coincidences are often an expression of some morbid hereditary influence.

When I saw this lady for the first time, in the Spring of 1861, she was thin and worn out by her long sufferings; she had had a cough all winter. The repeated summer congestion was beginning to leave its traces, and a slight degree of emphysema was detected by auscultation. It was in the Spring; I ordered a course of mineral waters at Eaux Bonnes, and toward the end of May I ordered several doses of quinine. At the usual time the malaise came on, the coryza, and soon the paroxysms of orthopnea, distinct and periodical at first, as they always had been during several days before they became continuous. Under the influence of additional doses of quinine the symptoms ceased.

The following year I used quinine again, and the summer affection did not appear at all. Three successive years I employed the same preventive treatment with perfect success.

Seven years have passed since then; the patient has undergone the severest mental trials and physical fatigues; during entire months she has watched beside the sick beds of her husband and father, but the cure is still permanent. The last two years only, in this exhausted condition, she has contracted an acute bronchitis, accompanied by a dyspnoea, which has no connection, according to her accounts, with her old trouble, in spite of its appearance at the same epoch. A few blisters and a soothing treatment, the bromide of potash among other things, soon overcame it. Being placed this year in more favorable conditions, she enjoys good health with the exception of a heaviness in the chest, which she has not had in this season for four or five years. Should this sensation, which is quite disagreeable, become more marked, I shall repeat the quinine in the Spring. As yet, I see no necessity for it.

I will add to this case another, that of a

lady who came under my care three years ago. Every Spring, towards March or April, she was taken with fever and an extremely violent coryza, which was soon followed by a dyspnoea, having all the characteristics of asthma. The paroxysms were cured, but the coryza was not affected by the quinine. The spasmodic and violent cough, the expectoration and the sneezing continued, and an explosion of these symptoms was brought on by the least chill. Every Spring the symptoms were the same. Her mother and another relative were affected in the same manner. This patient was of a lymphatic, lax, and anemic constitution, and belonged to an arthritic family. One of her uncles is a typical case of a gonty man. After having had sick headaches and asthma in his youth, he now has violent paroxysms of gout every year. In her aunts, I have found acne rosacea, chronic eczemas, neuralgias, and hepatic colics. Arthritism, under different forms, has stamped itself upon her whole family.

Dr. Fleury, one of the first in France to mention this form of asthma, which he had observed in his own case in 1852, devotes an interesting chapter to the subject in his excellent *Traité d'Hydrothérapie*. Previous to its first appearance he had suffered from attacks of the gout. His mother also was gonty.

After having tried a large number of remedies without preventing or overcoming this cruel disease, which returned almost at a fixed date, in the months of May or June, he had recourse to hydrotherapy, which freed him from the paroxysm. Enlightened by his own experience, he has successfully employed the same treatment in similar cases since. Among others is the curious case of a patient subject to a constant hæmorrhoidal flux, which ceased during the paroxysms. Shower baths directed upon the pelvis and thighs brought back the hæmorrhoidal flux, while the asthma disappeared at the same time.

We can compare this last circumstance with the interruption of the menses, in our patient, during the attacks. We can also note the attacks of gout which preceded the periodical asthma in Dr. Fleury's case, and which have returned several times since the cure of the thoracic trouble.

Enough has been said upon the characteristics of the affection, but before passing to the indications, I will dwell a few moments upon its pathogeny.

The name hay fever expresses the important influence attributed to the odoriferous emanations of hay in its evolution. Is it

the pollen? is it some parasite attached to these growths? is it the anthoxanthum odoratum, the aromatic folus of the grasses which cover the fields, as Dr. Gordon thinks?

It is certain that, in some cases, the odor of the hay appears to be the exciting cause of the paroxysms. The observations of Gordon and Elliotson leave no doubt as to the fact, although the latter is wisely reserved as to the determining cause of the symptoms. He gives, among others, the remarkable case of a lady patient observed by Dr. Payser.

The father of this lady had a sudden but temporary coryza every time he crossed a grass field in flower.

She, herself, every year, towards June, experienced a sensation of heat and fulness in the eyes, accompanied by redness and watering. To these symptoms there soon succeeded an irritation of the nasal mucous membrane and sneezing; then the inflammation spread to the throat and the trachea, with a sensation of heat and itching in the situation of these organs. At this time the dyspnoea was most painful. All these symptoms disappeared towards the middle of July. This lady had no doubt of their connection with the grass in flower. On the middle of August she could walk through the fields with impunity, whilst in June and July the neighborhood of grass would cause her the most acute suffering. If, at this time, she picked a handful of grass, the integuments of her hands became red and itchy; the same symptoms would appear if she employed dry hay in packing boxes. For the purpose of escaping the vicinity of hay fields during the fatal season, she took refuge at the sea shore in the roughest countries. Here she found relief when the wind came from the sea, but was less well when the land breezes blew. One day when walking at the foot of Harwich cliffs, she was taken with a sudden and violent paroxysm, explained, in the morning, when she learned that at the very hour of her walk, they were mowing a small patch of grass upon the crest of the cliff.

At another time, in the centre of a small town, at a distance from any grass, she was seized with a sudden paroxysm, and on looking out of her window, saw men making a stack of hay brought from a distance. Another time a paroxysm was brought on by her children who entered the room after having been at play in a barn filled with hay.

I might doubt the accuracy of these facts had I not seen others which present a great analogy to them.

Three of this lady's children, adds Elliotson, inherited this infirmity; a fourth had common asthma with this peculiarity, that paroxysms were brought on by the odor of guinea-pigs. Many similar facts are found in the books, enough, in my mind, to prove the influence of emanations from hay in causing the development of asthmatic coryza in certain individuals.

But although this influence is incontestable, we can see, even in the observations cited for its support, that the affection may appear without these conditions, even in the individuals most susceptible to its effects; thus proving that it is only an exciting cause. We also find, as I was just saying, analogous conditions in the etiology of common asthma. Certain odors, certain localities always, or at least during a certain period of life, provoke the paroxysms. I have come across two asthmatics in whom the odor of flax-seed meal had this effect. One of them seems to have a special susceptibility for this ordinarily inoffensive grain. It is impossible to make a poultice in his apartments without his discovering it and being seized with an attack of asthma. There are other cases in which the odor of bean flowers, or the odor of the cat, produces the same effect. The emanations of hay are indeed much more active than many of the substances feared by certain asthmatics.

A farmer of Normandy has said to me quite lately that, during haying time, both he and his laborers suffered from violent head-aches.

This circumstance is mentioned in a great number of observations, with all the more authority as the authors have drawn no conclusions from the fact, and hence had no preconceived notions upon its etiological bearing.

Periodicity is a characteristic of many arthritic affections. A spring-time periodicity is especially peculiar to them. I have often remarked that many diseases of an arthritic origin, which are recurrent or subject to periodical exacerbations, return especially at the times in which the gout of the joints most naturally shows itself. Neuralgias, head-aches, affections of the joints have exhibited this tendency: sometimes, even, the neuralgias have, like the gout, been marked by a nocturnal increase in intensity. Thus the characters of the original type are found in its derivatives.

I make this remark incidentally, without applying it to the asthmatic coryza, which comes on in the summer rather than in the spring; still the periodicity of this coryza

places it in the same category as the arthritic affections which generally manifest themselves by regular or irregular paroxysms.

If hay fever has been more often noticed in England than in France, can this be due to the greater frequency of gout in the former country? Finally, the fact noted by all observers that hay fever is generally an affection of the richer classes, may serve as a proof of its relationship to arthritism.

Continuing the study of these analogies, which, if not enough to prove a common origin, are enough to justify a further study of the question, I find, in one of my patients, a morbid condition due to the arthritic source; i. e., an urticaria, alternating with an asthmatic coryza, the latter appearing with symptoms such as an injection, an itching and a tumefaction of the eyes which recall the cutaneous affection to which it has succeeded.

Again, Dr. Payser's patient could not touch hay without an irritation of the skin of the hands, the nature of which cannot be exactly affirmed on account of the lack of details. Still its sudden appearance and its pruriginous character gave it a singular resemblance to urticaria.

Another remarkable analogy is found in the fact that urticaria, like hay fever, is often due to exterior causes, such as the ingestion of muscles, fishes' eggs, or shell fish, and occasionally of food harmless to almost all the world, such as rice and strawberries. I have met in my practice with five persons for whom this excellent fruit was a poison, and, a curious fact, those whose diathesis I could learn, either belonged to a gouty stock, or, later in life, had attacks of gout. Behind a vast number of nervous troubles, behind a vast number of bizarre functional anomalies stamped with a nervous imprint, we find arthritism.

I know that this view will be regarded as a heresy by many physicians who reject the majority of the diatheses, saying that they have not seen them. They remind me of the tourist who drove round a lake with his face turned in the opposite direction, and said there was no water. I believe if they have not seen the diatheses it is for lack of having looked for them. As to the analogies between the urticaria and the summer asthma, I wish to draw no conclusion from them. If it be admitted, as I believe, that both are due to arthritism, their succession and the analogy in their manner of development can be understood.

In my last cases of periodical asthma, I have noticed the existence of granular sore

throat. Was it a simple coincidence? Could not this sore-throat, which I have met with in other forms of asthma, intervene as a predisposing cause? It constitutes a source of irritation which might favor the determination of the morbid action to the respiratory organs. I have already spoken of the frequency of granular *pharyngitis* in children attacked by angina stridulosa, and I have given the same explanation of the rôle which it might play in the development of this affection.

The treatment should be based upon the general condition of the patient, the diathetic conditions in the midst of which the affection is developed, the functional troubles which characterized it, its progress and its localization.

If, as was the case with several of our patients, we can find, or, at least, suspect an arthritic substratum, we must order that hygiene which consists in avoiding at the same time all the causes of excessive stimulation, or of depression, sudden changes in the weather, damp cold, a lack of muscular exercise, in a word, all those functional aberrations and surrounding conditions which have such an incontestable influence over the gouty affections.

In those cases in which we can find an exciting cause, such as the emanations from hay, these causes must be avoided. The neighborhood of the sea, the fresh, pure air, often afford very marked relief.

Cold lotions, methodically applied, are among the hygienic indications of a disease, in which an over sensibility to atmospheric change appears sometimes to act as an exciting cause. They act as tonics, and the experience of all patients proves the impropriety and danger of a debilitating treatment.

Some physicians, Bostock, Payser, Elliotson, have considered some medicines of service. Lobelia inflata, the hypo-chlorides, solutions of chlorine in emanations, and in aspirations, and preparations of arsenic, have been tried, one after the other, with, it is claimed, some success.

The periodicity of the paroxysms caused me to prescribe quinine, and to it I owe the cure of the patient whose remarkable case I have given you. It seemed to me to take hold especially upon the spasmodic element and in the asthmatic form.

This is so true that in another case it checked the paroxysms of dyspnoea without affecting the catarrh. I have employed it successfully more than once in ordinary well-marked paroxysmal asthma.

When the affection returns at a fixed

period the use of quinine should be commenced seven or eight days before its expected appearance.

At the end of three years, I have been able to give up its use with one patient. In periodical diseases, whatever their nature, whether purely nervous or congestive, an interruption of the morbid habit during a certain time, sometimes suffices to put an end to it.

If the catarrhal element is well marked, and especially if it outlasts the attack, a sulphurous or arsenical treatment is indicated.

Even during the paroxysms, I should try arsenic if the quinine failed or seemed less indicated.

We should not forget to examine the pharynx and to check the granulations, if they exist.

In this case the perchloride of iron or the nitrate of silver are preferable to the tincture of iodine, on account of the action of this metalloïd upon the pharyngeal and naso-ocular mucous membranes.

The diet should be as nourishing as the state of the digestive organs will permit.

Such are the therapeutical teachings which can be derived from my cases. As in the treatment of many diseases, our present knowledge is but a stepping-stone. The construction of the edifice would require more and better arranged materials.

years ago, in fact, the only modern works on these affections at all known were the small works of Hardy and Bazin in France and the frequent editions of Wilson in England; but since the publication of the first part of Hebra, and especially within the past year or two, they have appeared with a rapidity which indicates a proportionate increase in the attention they are receiving in all parts of Europe. Journals, too, exclusively devoted to their study have been recently started in England, Italy, France and Germany. Special departments for their investigation are everywhere being established in connection with hospitals and clinics, and their treatment is universally falling more and more into the practice of men devoted to this specialty alone. In character and merit these books differ widely. Several of them are of little value, except to the authors, perhaps, as advertisements of their specialty, for they contribute nothing to our previous knowledge that is reliable; others are largely controversial, written to uphold individual theories respecting the pathology or nomenclature of this or that disease; a few are carefully prepared and valuable monographs on single affections or classes of affections; while but one or two only contain the recorded observations of master-minds in the whole field of cutaneous medicine.

The most recent of these publications are those the titles of which are above given. The first, just received through a friend in Vienna in advance of its publication there, is written by Dr. Neumann, a former assistant of Hebra, to whom the book is dedicated. As might be anticipated, therefore, its doctrines are found to be mainly those of his distinguished teacher, although published in a condensed form. It is on this account, and for two reasons, especially valuable; first, because half only of the great work of Prof. Hebra has yet appeared, and his views in relation to a large and important portion of skin diseases will remain unknown, therefore, to the profession generally for an uncertain period in the future; and, secondly, when finished it will be so comprehensive and inaccessible to general practitioners that a condensed résumé of his views will be greatly needed. It is chiefly in this respect that Dr. Neumann's book is useful, but not wholly so. He is the first to attempt to represent the changes in the tissues of the skin in the various diseases which affect it by figures drawn from microscopic sections, and although many of these illustrations are really more diagram than actual picture of the ap-

## Bibliographical Notices.

### A NOTICE OF SOME NEW WORKS ON SKIN DISEASES.

1. *Lehrbuch der Hautkrankheiten.* Von Dr. ISIDOR NEUMANN, Docent an der k. k. Universität in Wien. Mit 49 Holzschnitten. Wien: 1869. Pp. 368.
2. *Archiv für Dermatologie und Syphilis.* Herausgegeben und redigirt von Dr. HEINRICH AUSPITZ, Docent an der Universität Wien, und Dr. FILIPP JOSEF PICK, Docent an der Universität Prag. 1. Jahrgang. Erstes Heft. Prag. 1869. Pp. 162.
3. *Annales de Dermatologie et de Syphiligraphie.* Publiées par le Docteur A. Doyon. Première Année. No. 1. Paris. 1869. Pp. 64.

THE great number of books on Skin Diseases published now-a-days must astonish one whose knowledge of the literature of this branch of medicine is limited to what existed only a short time since. Not ten

pearances to be seen in the field of the microscope at a single view, still they serve the purpose for which they are intended much better than any verbal description, and are undoubtedly the result of reliable observation. The normal anatomy of the skin and its appendages, too, is well illustrated by figures taken mostly from the best works on histology. The study of the structural changes of the skin in disease has been hitherto almost wholly neglected; but recently particular attention has been directed to this branch of pathology in Vienna, as the paper on Keloid, by Dr. J. C. Warren, of this city, noticed in a previous number of this JOURNAL, and a similar article on Lupus erythematosus, by Dr. Geddings, of New York, both of which are illustrated by elaborate microscopic drawings and were published in Vienna, are examples. Such illustrations are of far more value to the student than the poor and highly colored pictures of the external lesions to be found in his text-books as characteristic of skin diseases.

The book is divided into a general and a special portion. The first contains a description of the anatomy of the skin and its appendages, of the various forms of eruptions or lesions it exhibits, and chapters on diagnosis, aetiology, therapeutics, and classification. In the second or special portion, the individual affections are arranged under the twelve classes of Hebra's system and described in a simple and condensed style, but yet at sufficient length to answer the purpose of a text-book for the student and a hand-book for the practitioner. The very latest views of the many observers who have grown up under Hebra's tuition will be found here recorded, some of which, as we shall see elsewhere, differ from those of their distinguished master. The matter of treatment is handled with that regard to detail so essential to the value of this part of the subject, and which distinguishes the writings of German dermatologists from those of other nations. A very full and valuable list of recipes useful in the treatment of skin diseases is appended to the volume. There are many points in the book which deserve a special reference, but as this is a notice and not a critical review, they must be passed over.

The Archiv for Dermatology and Syphilis meets a want which has long been felt by those interested in the study and treatment of these two classes of disease; for not only does it present in a connected form all that the reader has hitherto been obliged

to cull from an immense and ever-extending field of periodical literature, but it enables those who have hitherto recorded the results of their observations only at rare intervals in book form, to give them to the public without such delay, and stimulates others to publish what might otherwise never be made known. It is in no way like its English relative, a journal largely devoted to the dissemination of the views of any one man or school, or tinged through and through with editorial prejudice or egotism, but a fair and dignified channel, free to all who may justly claim to speak through it. Its value and success are assured by the character of its editors and the distinguished names associated with them as co-operators—among them Anderson, Bazin, Biesiadecki, Boeck, Hallier, Hebra, Köbner, Kohn, Landois, Mosler, Neumann, Reder, Sigmund, Wertheim, and Zeissl.

The promise which such names offer is fully sustained by the contents of the first number. As an introduction, we have a modest preface by the Editors, and a communication from Prof. Sigmund upon the necessity of special clinical departments for the study of venereal and skin diseases. The first regular article is from Prof. Hebra, upon the use of rubber cloth in the treatment of skin diseases, and of which a translation will appear in a future number of the JOURNAL.

Dr. Köbner, of Breslau, follows with a communication on parasitic Sycosis, the existence of which, as is known, is denied by Hebra and other authorities. It seems to me beyond question that there are two distinct affections of the beard, closely resembling each other, one of which is an idiopathic inflammation of the hair follicles, while in the other the same pathological condition is caused by the presence and growth of a fungus, and we cannot forbear expressing a critical opinion in this connection. I do not agree with Dr. Köbner in regarding this fungus as identical with that of Herpes tonsurans or ringworm, the Trichophyton tonsurans. I have often seen the rings of *H. circinatus* extend from the face into the beard, and there remain for many months, causing the destruction of the hairs, but never under such circumstances produce any of the peculiar and characteristic appearances of sycosis, and it seems highly improbable that the trichophyton, which always gives rise to a constant series of effects upon the scalp, as *H. tonsurans*, and as undeviating a succession of appearances upon the skin as *H. circinatus*, should upon the beard at one time

cause one peculiar set of symptoms, and at another time others entirely unlike them.

The next article is on *Lupus erythematosus*, by Kohn, in which the treatment of this disease is very fully discussed, and the action of caustics upon the skin considered at length. The surprising action of mercurial plaster in this affection, accidentally discovered by the writer, is for the first time announced; cases which had resisted treatment in Hebra's wards for years yielding to its use in from six to twelve weeks.

Prof. Hallier, of Jena, furnishes a long communication on the vegetable parasites of the human body, in which his peculiar views with regard to the nature and importance of these now much-talked-of growths are given, but differing in no way from those contained in his former writings on the same subject, which have been noticed to some extent in this Journal (October 1, 1868).

Dr. Zeissl contributes a short article on the so-called subcutaneous condyloma, which, according to him, is a monstrous hypertrophy of the cellular portion of the follicle.

The last of the original articles, on *Eczema marginatum*, by one of the editors, Dr. Pick, is important, as it must be looked upon as definitely settling a question about which there has been much difference of opinion. This affection was first described by Hebra as a peculiar variety of eczema, characterized by its localization upon the inner surface of the thighs, buttocks and lower abdomen, by its slow peripheral extension outwards while healing in the centre, the well-defined and elevated margin which marks its limits, and by the discoloration it leaves behind in its course. Some striking pictures of it will be found in Hebra's plates. In 1864 Köbner announced the discovery of a parasitic fungus in this elevated border, and his opinion that this plant was the cause of the disease. This Hebra stoutly denied, but since then experiments and investigations carried on by the former and Pick, the results of which are here given, show conclusively that *E. marginatum* is really a parasitic affection of the skin, caused by the presence of *Tricophyton tonsurans*, or, in other words, that it is only a variety of *Herpes tonsurans*, the peculiar appearances of which depend chiefly upon its seat, and are those of "a *Herpes tonsurans vesiculosus* combined with those of an *eczema intertrigo*."

The second part of the volume contains an exhaustive and carefully prepared notice of all recent articles in any way connected

with dermatology and syphilis, arranged under appropriate divisions, and is of very great value. The whole deserves the highest praise.

The French Journal, the *Annales*, also presents upon its title-page a long list of collaborators, among whom may be mentioned the following well-known writers on these closely united branches, dermatology and syphilis, to which it will be devoted: Bassereau, Bazin, Clerc, Devergie, Diday, Hardy, Hebra, Lancereau, Lee, Ricord, Rodet, and Rollet. With such resources at command, which, as will be seen, are the most eminent that France possesses in these departments of medicine, it can hardly fail to accomplish all that the editor promises in his preface. It is especially in syphilography, however, that we may expect, as the above list suggests, most that is novel and valuable, for it is among these observers that the widely diverse modern theories with regard to syphilis are mostly agitated. A mention of the contents of the first number will show how largely this feature will characterize the journal, and indeed, considering the state of dermatology in France at present, we could hardly expect a predominance in the other direction.

We have first a contribution to the study of *Blenorrhagic Rheumatism*, by Fournier, in which he maintains that the urethral lesion is the essential, efficient cause of the affection, that "it is the blenorrhagia which causes blenorrhagic rheumatism."

Then follows the first part of an article by Diday on the employment of ice in certain affections of the testicular apparatus. He finds it serviceable first, in the orchitis sometimes complicated by blenorrhagic epididymitis; second, in testicular neuralgia, (irritable testis); and third, in certain obscure states in which pain constitutes the predominant feature.

Rollet contributes the first of a very important series of papers on the venereal and syphilitic affections of the uterus; and Guibout a communication on Diatheses in skin diseases in a therapeutical point of view.

The bibliography of this number consists of a long review of Jeannel's recent work on prostitution in the great cities of the nineteenth century, and the extinction of venereal diseases. It closes with a review of matters pertaining to its specialty contained in contemporary journals.

The *Annales* will be published every two months.

JAMES C. WHITE.

March 29, 1869.

# Medical and Surgical Journal.

BOSTON: THURSDAY, APRIL 15, 1869.

## NOTES FROM L'UNION MEDICALE.

*Trephining.*—M. Chassaignac considers this operation indicated in only two conditions: 1, when there is a lesion situated in a definite spot, the seat of which lesion is fully ascertained, and the effects of which may be suppressed by trephining; 2, when there are symptoms of general compression, with dilated pupils, which symptoms are tending infallibly to produce death.

*Discharge of Blood and Serum from the Ear as a Sign of Fracture of the Base of the Cranium.*—A child five or six years old fell from a third story window, and was carried to the Hospital *Sainte Eugénie*, apparently in a dying state. He lost so much blood from the right ear that, on his first day in the hospital, several folds of linen were completely soaked with it. M. Marjolin diagnosed, at the upper part of the cranium, a transverse depression, and found all the signs of fracture with depression. Revulsives and purgatives were employed, but no operation was done. The flow of blood continued in diminished quantity for three or four days, at the expiration of which it was replaced by a discharge of serous fluid, which went on for about twenty-four hours. When the serous discharge ceased paralysis of the left side suddenly set in. Treatment same as before. After a few days the paralysis subsided, the child completely regained its intelligence, and was beginning to walk about. Then, an endemic of croup broke out in the hospital, and the little patient died of that disease. At the autopsy, the only fracture found was a transverse one of the crown of the head. This was accompanied with depression of the fragments into the cerebral substance. Three or four convolutions were destroyed. The fracture did not appear to continue towards the base of the cranium, and no trace of fracture of the temporal bone (*rocher*) was discovered. The superior longitudinal sinus had not been opened by the fracture. There was no effusion of blood between the dura mater

and the upper part of the skull; but traces were evident of a vast discharge of blood between the two layers of the arachnoid.

During the discussion which followed the relation of this case (at the *Société Impériale de Chirurgie*), M. Trélat referred to the cases reported by MM. Ferry, Prescott Hewitt, and Morvan, in which bloody serum flowed from the ear without there being fracture of the base of the cranium. The lesion was either of the inferior wall of the auditory canal, or of the tympanum, or in the bones of the internal ear, the cavity of the cranium not being opened into. To authorize the inference that a flow of serosity from the ear has its source in the cavity of the cranium, it is requisite, according to M. Trélat, that: 1, this flow be not sudden, but that it follow—after a few days' interval—a discharge of blood; 2, that it be of some considerable duration; 3, that the fluid have the chemical characters and the peculiar reaction of the cephalorachidian liquid. Under these conditions a flow of serosity from the ear, said M. Trélat, is a veritable pathognomonic characteristic of fracture of the base of the cranium, while a simple flow of blood, not followed by a discharge of serosity, is not a pathognomonic sign.

*Fibrous Tumors complicating Pregnancy. Cases related at the Imperial Surgical Society, Paris, February, 1869.*—A woman was taken in labor at full time, at Argenteuil, Nov. 30, 1856. The midwife in attendance could not make out the presentation, although the parts were well dilated and the membranes ruptured. Soon a hand of the fœtus appeared at the vulva. A physician was immediately called, who tried in vain to turn the child. Another also failed. Thereupon it was determined to send her to Paris, and on the evening of December 1st she was admitted into the Hospital (*des Cliniques*). She was in an alarming condition, and Prof. P. Dubois was summoned at once. The infant was dead. The cord hung from the vulva, as also the hand and fore-arm of the child. Prof. Dubois at first thought that there was a considerable contraction of the pelvis. At this moment abdominal palpation gave no evidence of uterine tumor. The patient



having been etherized, Prof. Dubois and M. Blot (chef de clinique) made two unsuccessful attempts at version. The next day, after a bath and venesection, renewed attempts were made without success. At length, at the request of Prof. Dubois, M. Depaul, who was in attendance also, succeeded in bringing down a foot to the vulva. By drawing upon this foot, delivery was effected, though with the greatest difficulty. The head of the child was much flattened. At the moment of the passage of the head, M. Blot felt it make a sudden bound, as though it had passed a notable obstruction. The patient died the next day, after a chill, intense fever, and green vomiting.

Autopsy showed on the surface of the uterus and in the thickness of its tissue the existence of many tumors, one of which, having a pedicle two or three inches long, was retained in the pelvic cavity by extremely firm fibro-cellular bands. Thus the pelvic cavity was reduced to a third of its ordinary capacity, and hence the death of the child and mother.

Two other cases, under the observation of M. Blot, had a different termination.

December, 1867, Messrs. Blot and Pajot were called in consultation by M. Hugnier to a woman, aged 30 to 35 years, who had reached the seventh month of her first pregnancy. She had about a dozen fibrous tumors which could be felt through the abdominal parietes. One of these completely filled the pelvic cavity, and was so wedged therein that it could not be moved. The neck of the uterus was completely flattened out between this tumor and the symphysis pubis.

It was decided in consultation not to induce premature labor, but to await the usual changes incident to pregnancy. Three weeks later the tumor, following the natural ascent of the uterus, had risen from the pelvic cavity so as to allow a small portion of the head of the fetus to be made out by digital examination. The consultants decided to wait still longer.

Labor occurred Feb. 28th, 1868, the head of the fetus having, in the meantime, gradually become more accessible. As labor advanced the uterine contractions with-

drew the tumor more and more from the pelvis, and, on the rupture of the membranes, the head engaged in the superior strait, from which position at 9, A.M., M. Blot readily terminated the labor by forceps. Mother and child did well.

Last July M. Blot was called in consultation to a woman aged 35 years, for inflammation in the region of the uterus. She was two or three months pregnant, and was found to have a fibrous tumor filling the pelvic cavity and flattening the neck of the uterus against the symphysis pubis.

The inflammation having passed off, the pregnancy took the normal course. M. Homelle, the attendant, subsequently informed him that labor terminated naturally. The tumor rose above the superior strait, as in the previous case and by the same influences, and permitted the extraction of a living and healthy child.

The first case, unlike the last two, terminated fatally in consequence of fibrous adhesions preventing the ascent of the tumor.

M. Blot thinks that such tumors increase in size during pregnancy, and diminish after labor. In the case under his observation, the tumors had decreased about one-third.

In conclusion, according to his experience, no general rules can be given for management of fibrous tumor of the uterus complicating pregnancy. In a good proportion of cases labor may not be attended with very great difficulties, but when adhesions exist the child cannot be born alive, and the mother may succumb. Unfortunately, this last grievous complication cannot be made out beforehand.

At a subsequent meeting of the Society, the cause of the increase and diminution of such tumors was discussed, M. Guéniot maintaining, against others, that it had not been scientifically demonstrated that pregnancy was the active cause of either. He related a case in which six months after delivery there was not the least change in position, volume, or consistence of the tumor.

Prof. Brown-Séquard communicated to the Academy two facts which he had observed in connection with lesion of the *corpora testiformia* in guinea-pigs. The first was

the production of hæmorrhage seated uniformly under the skin of the ear. This form of hæmorrhage had never been before pointed out. The only sanguinary effusions produced by lesions of the nervous system which had been observed, were that into the kidney in diseases of the spinal marrow, and hæmorrhage of the intestine in lesions of the brain. Another not less remarkable result of lesion of the restiform bodies was the production of dry gangrene of the ear. Even when the injury of the corpus restiform was produced on one side only, the gangrene may show itself upon both ears; but more often it is on the same side with the wounded restiform body.

Another fact was alluded to by Prof. Brown-Séquard—that section of the sciatic nerve induces epilepsy when the face is irritated at a certain point, just as occurs after lesion of the spinal marrow. On this point M. Colin stated that he had often divided the lesser sciatic nerve of a horse, and had produced nothing but halting. The Professor replied that everybody had seen animals with the sciatic nerve cut, and which were not epileptic for all that. But, what had not been hitherto known was that by irritating certain parts of the face when the nerve had been divided, attacks of epilepsy had been provoked.

THE SIAMESE TWINS.—The *Gazette Hebdomadaire* has an article on the Siamese twins. We discover nothing in it additional to what has appeared in American and English journals. One fact, however, from the English investigations of the twins, had escaped our notice. Under the sphygmograph the pulse of Eng, who is the larger and the more robust, gave a more powerful impulse than that of Chang, whose arterial system is said to furnish evidence of organic senility. The *Gazette* says one of the brothers appears "called to" an existence of longer duration than the other; and that the day may come when will arise, for the first time, the question of detaching a living man from a corpse.

DR. AMORY kindly furnishes the following information with reference to ether in membranous croup:—

MR. EDITOR,—While studying in Paris,

two years ago, I was informed by M. Roger's *Interne*, with whom I was going through the "*Hôpital des Enfants Malades*," that the operation of tracheotomy for membranous croup was there *never* performed with the administration of ether. As a reason for this, it was stated that oxidation of the blood was prevented from a deficiency in the supply of air to the lungs, thus producing analgesia.

I have seen the operation there performed as often as six times, and always without the use of any anæsthetic. In these cases the children offered no resistance and seemed to suffer no pain. None of them died during, or for several hours after, the operation. Of these six cases four entirely recovered, and in the other two the operation was merely undertaken to mitigate the suffering of the little patients, and with little expectation of their recovery, there being mucous râles in one or both lungs before the operation. Membranous croup was very prevalent during that winter, and I saw some other cases terminate fatally which had been operated upon, though I was not present during the operations.

I mention this, as I know that in this part of the country it is the custom to etherize the patient before tracheotomy is performed. While a medical student, I assisted in one operation and just missed seeing another, in which the patient died *before* the operation was concluded; in the former case, I strongly suspected at the time that suffocation from the ether, and not the operation, was the cause of death, though much care was exercised in the administration of the anæsthetic.

I desire to call the attention of the profession to this, and should like to see in your *JOURNAL* an account of the experience of surgeons who have *not* used ether in this operation; as I have never seen any allusion in medical books or journals to the analgesia caused by membranous croup. If this is a fact, much time and exhaustion from struggling against the ether may be saved to the patient.

R. A.

LUXATION OF THE HIP IN A YOUNG BOY.—At the monthly meeting of the Suffolk District Medical Society, March 27th, Dr. Tuck related a case of dislocation of the right hip upon the dorsum ilii, occurring in a healthy boy 6½ years of age. He was playing "horse" and fell, his companion falling upon him. The usual shortening of the limb and turning in of the toes were present. The head of the femur could be

plainly felt upon the dorsum ili. Ether was given, and reduction was easily effected by manipulation; the thigh being first flexed upon the body, then rotated upwards and outwards, and finally extended, when the head of the bone slipped into place with a sharp snap.

This accident is noteworthy from the rarity of its occurrence in children. In fifty-one (51) cases of hip dislocation reported by Malgaigne,\* in only one was the patient under fifteen, and Hamilton† has collected only seven (7) instances occurring at seven (7) or under, out of eighty-four (84) cases.

[In the edition of 1863, nine (9) such cases are given by Hamilton.—D. F. L.]

EXTRACTS FROM AN ACCOUNT OF AN OPERATION FOR THE RADICAL CURE OF HERNIA. By J. FAYRER, M.D., F.R.S.E., &c.—The method of performing the operation is simple, but it requires some care and confidence for its effective completion. The fore-finger of the left hand, oiled, is inserted into the inguinal canal, and the scrotum invaginated is pushed before it up to the internal ring with firm and decided pressure. One ligature, strong and well-waxed, is then threaded in the needle, the point of which is insinuated along the palmar aspect of the finger on its radial side, until it has reached the extreme apex of the invagination; it is then forced through the abdominal parietes, and appears on a line with the anterior superior spine of the ilium; about  $1\frac{1}{2}$  or 2 inches internal to it. The needle is then unthreaded and withdrawn, to be threaded with the second ligature, and again introduced, this time on the other side of the finger to be pushed through the abdominal wall as before; this time transfixing a short distance from the point where it first pierced, but emerging through the same opening in the integument.

The needle is again unthreaded and withdrawn. The plug is now pulled into the canal, the apex being firmly tied against the apex of the invagination, and the threads firmly knotted over the small piece of wood. The operation is thus completed.

The plug is left *in situ* for three or four days or more, until pus appears to flow freely from beside the ligatures. These are then cut and the plug withdrawn. The discharge is gently pressed out, a pad and spica bandage are applied, and the patient is kept in bed and cautioned not to strain at stool for some days; as soon as the wounds have cicatrized, a truss may be ap-

plied, which should be worn for some months, especially when any exertion is made; it may gradually be left off when the tissues have become firmly consolidated. The time occupied in treatment varies from a month to six weeks in ordinary cases; if there be much suppuration, and that have burrowed among the abdominal muscles, there may be delay, and counter-openings may be necessary, but such cases are the exception. The only one was that of a native who was attacked with erysipelas and died of pyæmia, the result of cellulitis. . . .

There was thus a total of 67 cases, of which 46 were apparently successful; 9 were relieved; 11 failed altogether, and 1 died.—*Medical Times and Gazette*.

A REVIEWER, speaking of Dr. Murchison's views of the functions of the liver, &c., says:— . . .

At present we are very much in the following position. We do not know whence the glycocholic and taurocholic acids come, nor whither they go, beyond having a vague idea that they are useful in the absorption of fat; we do not know the origin of the so-called glycogen; and we only know that, normally, glucose is destroyed in passing through the lungs. As to the bilirubin and biliverdin-coloring matters, we have some idea that they are derivatives of cruorin, and that they are partly reabsorbed and partly expelled, in a changed form, along with the feces. This is certainly very little, but we fear it is only too just an exposition of the exact state of our knowledge as to the bile and its functions. . . .

As to the diagnosis of the cause of jaundice, Dr. Murchison also opposes Dr. Harley's doctrine that in jaundice from obstruction the bile acids appear in the urine, but not when the jaundice arises from suppression. He also rejects Dr. Harley's mode of testing for bile acids, inasmuch as it affords no means of separating the reactions of the urinary pigments from those of the bile acids.

The subsequent chapters on fluid in the peritoneum and on pain in the liver are also highly interesting, especially the latter. His remarks on the removal of gall-stones are, we think, sound and practical. He advises alkalies as most likely to do good. Such also is our opinion, but, in common with our author, we also hold that hygienic conditions must be carefully attended to. The great cause of gall-stones is sluggish bowels, and the great cause of sluggish bowels is indolent habits, still more if associated with high living. Of no malady can it be more aptly said that prevention is better than cure.—*Ibid*.

\* Holmes's Surgery, vol. ii.

† Page 621, Edition of 1860.

## Medical Miscellany.

At a meeting of the Obstetrical Society of London, March 3d, 1869, Dr. Brunton read a paper on Twin Pregnancies, detailing seventeen cases of twins observed in his own practice, and nine cases obtained from friends. Of these cases, sixteen had children of the same sex (males or females), with two amniotic sacs. Nine had children of opposite sexes (a male and a female) in one sac; and in one case there were two sacs, and one male and one female child. The conclusion at which he arrived was that, if a male ovum came down from each ovary at one and the same time, conception taking place, we had here an explanation of the existence of twin males, and so for female ova. But if two ova came down from the same ovary, conception taking place, we had twins of opposite sexes (male and female), and this pointed to the function of the ovary—viz., that probably the ova cast off from each ovary are alternately male and female—in other words, each ovary casts off at one and the same time a male, or each a female ovum. In no case were the twins of the same sex in one bag of membranes.

Dr. Playfair remarked that Dr. Brunton had overlooked the cases of conjoined twins, which were never of different sexes, and yet must have had but one sac.

Dr. Brunton replied that he could not see that this fact disproved his theory. His observations were of natural cases. Moreover, in the cases of conjoined twin-monsters, there might have been a coalescence of the ova (males or females) from each ovary, producing a double monster of the same sex.—*Medical Times and Gazette*.

**CARBOLIC ACID.**—We think it necessary to put our readers on their guard against an incautious use of carbolie acid. It seems to be forgotten sometimes that this substance exercises a powerfully destructive action upon animal tissues, and that it is, in fact, a very strong caustic when concentrated. There is no doubt that many serious accidents have recently occurred from Surgeons not being aware of the properties of the remedy they use so freely. It must also be remembered that the direct application of carbolie acid, even in a diluted form, to a granulating surface, will often delay cicatrization, and tend to promote suppuration, whereas, if it is employed at a distance from the wound, it will tend to diminish the formation of pus. There is, moreover, a good deal of evidence to show that it tends to stimulate the circulation through the smaller vessels, and thus gives rise to hæmorrhagic oozing, from recently cut surfaces, preventing their primary adhesion. If, however, it be properly applied in a diluted form to the wound itself, and in some permanent and non-volatile form to the external parts, it will be found to have a powerful influence in retarding and diminishing suppuration.—*Ibid*.

It was intended that the quotation in our last issue credited to Dr. Harrop should follow immediately after the remarks of the Editor of the *American Journal of Pharmacy*, but by some accident a dislocation took place.

**HARVARD TO THE RESCUE!**—That young man who edits *The College Courant* (Yale) must be looked after. Hear him!

"An exchange speaks of President Eliot, of Harvard, as a representative of 'muscular Christianity,' and one who will bring her up to the front rank and infuse something of the spirit of modern life into her veins. The editor speaks as a son of Harvard, and from the tenor of his words we should infer that Harvard had heretofore not been in the front rank. We always considered Harvard not to be far behind any American College."

That is to say (our younger brother in the Editorial line intimates), he didn't know *before* that Harvard was so far *behind*!

**THE DIFFERENCE.**—Science may properly take cognizance of *sexual precocity*; but it is another thing for parents to seek to make money by exhibiting to the public indiscriminately the extraordinary mammary development of a three-year-old child.

THIRTY-FOUR students received the degree of M.D. at the Chicago Medical College the 23d of March. Two *ad eundem* and four honorary degrees were also conferred.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic; 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital—Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—The following communications have been received:—Paralysis of the Motor Nerves of the Eye—Physiological and Therapeutical Uses of Ergot.

**PAMPHLETS RECEIVED.**—New York State Inebriate Asylum Superintendent's Report, 1868.—Valedictory Address to the Graduating Class of the School of Medicine of the University of Maryland. By S. T. Wallis, Esq.—On the Treatment of Paralysis by Electrization, with an Explanation of a new Galvanic Apparatus. By A. D. Rockwell, M.D., New York.

**DEATHS IN BOSTON** for the week ending Saturday noon, April 10, 10t. Males, 51—Females, 53.—Abscess, 1—accident, 3—apoplexy, 1—asthma, 1—disease of the bladder, 1—disease of the brain, 4—bronchitis, 8—burns, 1—cancer, 2—cancerum oris, 1—consumption, 18—convulsions, 1—diarrhœa, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 4—dysentery, 1—scarlet fever, 10—typhoid fever, 2—disease of the heart, 4—infantile disease, 1—influenza, 1—disease of the kidneys, 4—locomotor ataxia, 1—inflammation of the lungs, 8—marasmus, 2—old age, 2—paralysis, 1—premature birth, 1—pyæmia, 1—rheumatism, 1—scrofula, 1—disease of the spine, 1—ton-sillitis, 2—ulceration of the legs, 1—unknown, 8—whooping cough, 1.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 25—between 40 and 60 years, 17—above 60 years, 17. Born in the United States, 69—Ireland, 30—other places, 4.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, APRIL 22, 1869.

[VOL. III.—No. 12.]

## Original Communications.

### A CASE OF FOLLICULAR ENTERITIS.

By S. G. WEBBER, M.D.

THE notes of the following case were kindly furnished by Dr. Buckingham, who saw the patient in consultation.

A girl, 3 years old, ate heartily of pigs' feet for breakfast. This was the only error of diet which could be discovered at that time, though this child and her brother had always been badly fed.

She was first seen by Dr. Parker, about noon. Up to that time she had vomited a little, but no part of the pigs' feet was found in the vomitus. She complained also of tenderness of the teeth. A cathartic was administered, but no dejection obtained. Then enemata were given, which brought away, at first, dark and slimy dejections; afterwards, several greenish and slimy ones. The vomiting continued throughout the sickness, and towards the last partially digested blood was thrown up.

Four days from the commencement of the attack, Dr. Buckingham was called, and at 6 o'clock, P.M., there was no pulse at the wrist; hands and forearms were cold; the remainder of the body was warm. The face resembled the face of a patient in the collapse of cholera. There was constant restlessness and crying out, with hand on epigastrium. The abdomen was not tympanitic; it was full and hard in the neighborhood of the cæcum. Oleum terebinthinæ, by enemata, and tinct. opii p. r. n., were prescribed.

She died at 3, A.M., on the fifth day of the disease, after two enemata. There had been no dejection.

The brother, 10 years old, was attacked with similar symptoms at the same time, but soon regained his health.

After the death of the girl, it was learned that before her sickness she occasionally complained of blindness.

I was requested by Dr. Buckingham to examine the deceased child.

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The body was well nourished, with a large amount of fat. Rigor mortis was moderately well marked.

Lungs, heart, liver, spleen and kidneys were healthy; there was no sign of disease in any of the above organs.

The ileum, for about a foot above the cæcum, was very much congested; higher up, the congestion gradually faded away, and at two feet from the cæcum it had entirely disappeared. The upper part of the large intestines was also congested.

The mesenteric glands corresponding with the diseased intestines were enlarged, and in the acute angle formed by the junction of the ileum and cæcum, there was a large, indurated, nodular mass, composed of many swollen glands united.

The stomach and intestines were opened. The stomach contained a dark fluid, seemingly partially digested blood. The small intestines contained a similar fluid, which was black in the upper part of the duodenum, and changed gradually to a dark-green color towards the ileum. The cæcum contained a gelatinous substance. The rest of the large intestines was very nearly empty. The mucous lining of the stomach showed many spots, varying in size, where the smaller bloodvessels were much injected and unusually visible.

The interior of the small intestines, over the space corresponding to the congested portion, and the whole of the large intestines, were more or less thickly covered with small elevations filled with pus, each with a dark depressed spot in the centre; evidently inflamed follicles. This change was most marked in both small and large intestines in the neighborhood of the cæcum. The ileo-cæcal valve, and the parts in its immediate neighborhood, were much congested, and apparently all the follicles were inflamed. This great change, with the pressure of the mass of the glands in the angle, must have very much if not quite obstructed the passage through the ileo-cæcal valve.

Peyer's patches, for a distance of a foot and a half from the cæcum, presented a singular appearance. They were en-

[WHOLE No. 2147.]

larged and prominent, elevated nearly a sixteenth of an inch above the mucous surface, and had a brush-like appearance. The patches above that distance were abnormally distinct and gradually became normal. Also, the follicles were abnormally distinct for some distance above the region where they were most diseased.

The follicles of the large intestines were less affected the further the distance from the cœcum; but there were diseased follicles scattered thinly over even the lowest part of the gut which was removed, nearly to the end of the rectum.

The appendix cœci was healthy.

The specimen was shown to Dr. J. B. S. Jackson, who considered it a case of acute folliculitis.

The head was not examined.

No microscopic examination was made.

#### REMARKS UPON A CLASS OF OBSTETRICAL CASES.

By GEORGE CAPRON, M.D., Providence, R. I.

THE class of obstetrical cases to which I would respectfully invite your attention is that in which the head of the child is the part last expelled; whether this occur spontaneously—as in cases of presentations of the breech, knees or feet, or artificially—as in turning in presentations of the arm or shoulder, and other cases requiring that operation. It is a well-known fact that in these presentations a large percentage of the children are lost, and that death in a large proportion of the cases is caused by compression of the funis during the last stage of labor. The percentage is differently estimated by different authors, varying from twenty to thirty-three per cent. The greater estimate probably falls short of the truth; I think I do not err in saying that in primiparæ, it amounts to nearly or quite one half; and it is doubtful whether the greater success in the case of multiparæ reduces it below thirty-five or even forty per cent.

NOTE.—In this estimate of the percentage of loss, reference is had to the *whole class* of cases. Statistics based upon breech presentations *alone*, which is the most favorable variety of this class, would show much more favorable results.

Every practitioner of experience must often have been disappointed and indeed mortified (to say nothing of the emotions prompted by humanity), by having a fine, healthy child die in his hands, notwithstanding his most strenuous efforts to save it. Among our Catholic patients—who believe

the baptismal rite essential to insure the infant the light of Heaven—we are made to feel our responsibility with especial keenness. Whatever views may be entertained upon this subject by the parents or friends, it is plainly our imperative duty to put in requisition all the resources that art or ingenuity can suggest to preserve the life of the child, when its preservation is consistent with the safety of the mother. The opinion of some authors that a considerable proportion of the deaths occurring in these cases are caused by injury done to the spine, and particularly of the neck, is probably unfounded. It is certainly a severe, and we may hope an unjust imputation of ignorance and rudeness, that requires to be well-supported by facts. That it has occasionally occurred, particularly in the hands of rude and ignorant female practitioners, is undoubtedly true. I have recently seen a case in which I thought this to have been the fact, and I have always been of the opinion that too much caution could not be exercised to guard against an accident of this kind, which in the existing weak and relaxed condition of the muscles might happen from a very moderate degree of extension.

My reason for selecting this particular subject is, that as far as I have investigated it I have found in the books no sufficiently full and detailed directions for managing this class of labors, nor any full account of a manœuvre which I have practised for a number of years, by which I am confident that I have saved the lives of a considerable number of children that I should have lost by any other known procedure.

I was led to practise the manœuvre hereafter to be described by observing, by chance, that after the shoulders were expelled—could the head be brought into the most favorable position of which it was susceptible when in the pelvis—the child might breathe and even cry before the head was fully expelled.

Among the obstacles to the delivery of the head, endangering the life of the child, in these presentations, those most frequently met with and most important in the present connection, are a cessation of uterine contractions and unusual rigidity of the soft parts, both of which are liable to be present in the same case. Deformity of the pelvis, it is true, may be a more serious obstacle, but fortunately this complication is of rare occurrence. Where it does exist in a marked degree the child will almost certainly be lost.

While the head remains in the uterus the

stimulus of its presence keeps up the contractions, but where it has escaped from that organ and occupies the vagina, uterine contractions often entirely cease. In this situation the only forces brought to bear upon the head are the contractions of the coats of the vagina, and the forcing down of the uterus by the voluntary action of the diaphragm and other abdominal muscles. The former of these is very limited in amount, and the patient being exhausted and discouraged by long continued hard labor, and thinking, perhaps, that her task is finished, yields herself up to the indulgence of her comparative freedom from pain and withholds all voluntary aid. In this situation of affairs the physician is in a dilemma—extension to any considerable amount is inadmissible, the funis is almost certain to be compressed, pulsation is soon found to have ceased, the child twitches spasmodically, and the experienced accoucheur foresees the result.

Rigidity of the soft parts in a troublesome degree, as is well known, is most frequently met with in first labors, and more especially if the woman be somewhat advanced in life; and I may add that according to my observation it is more common among Irish than American women.

In order to manage with the best chances of success the presentations under consideration, I would suggest the following general plan, which is by no means claimed as original except in a few particulars.

*First.* All attempts at manual assistance, under ordinary circumstances, should be avoided until the os uteri is fully dilated, and the hips and even the shoulders are expelled by the natural forces.

*Secondly:* In making examinations great care should be taken not to rupture the membranes, as the nearer the labor is to being accomplished before this happens, the more successful is the result likely to be. Unfortunately, the membranes often rupture spontaneously in the early stage of the labor; sometimes they are ruptured accidentally in making an examination, and I have known them to be ruptured intentionally, with the view of ascertaining more precisely the presentation, and much trouble, including the death of the child, has been the consequence.

*Thirdly.* If there be great rigidity, bleeding, nausea, anodynes, pediluvia, fomentations to the pudenda or a hip bath, warm sudorific and relaxing drinks, the use of belladonna ointment and time, will be preferable to any manual assistance that can be rendered.

*NOTE.*—In modern days bleeding is so much out of fashion that it is rarely proposed, though formerly it was considered one of the safest and most reliable means of accomplishing this end. In the meantime, however, the use of anaesthetics has been introduced into obstetrical practice, and it must be admitted that they have claims to the highest rank in overcoming rigidity, alleviating the suffering, and shortening the pangs of child-birth. The effects of chloroform are often charming, but it is a treacherous agent, sometimes killing when danger is least suspected. It has not been my misfortune to kill any one with it, but I have seen effects from its use that have entirely deterred me from administering it by inhalation. From the use of ether, on the contrary, I have never witnessed any evil consequences, and in cases to which it is adapted, and when the amount of suffering is such as to demand it, I administer it freely and fearlessly.

During the last stage of the labor frequent draughts of cold water are often beneficial in stimulating the uterus to increased action, but the agent upon which the greatest reliance can be placed when the soft parts are in a favorable condition is ergot. When ergot is used, the choice of the time to administer it is important. Its full effects are desirable only during the last stage of the labor.

*Fourthly.* When the breech presents it is rarely, if ever, necessary, or even proper, to bring down the legs, and more especially in first labors, in which the gradual distention produced by the slow advancement of the breech is of the greatest importance in preparing the way for the head.

*Fifthly.* In regard to bringing down the arms, notwithstanding the high authority to the contrary, I am decidedly of the opinion that it should not be hastily done, or even under ordinary circumstances done at all, for the following reasons:—While they remain in the vagina and perhaps extend up into the neck of the uterus, the distention they occasion is the most natural and certain stimulus to expulsive action; and, by their position, they may in some measure protect the funis from compression. After the hips, with the legs folded upon the abdomen, have passed through the external parts, there can be no great difficulty in the passage of the shoulders and arms in almost any position they may chance to be, and the greater the distention of the external parts, and the greater the effort required to accomplish this part of the labor, the more readily will the head follow, so far, at least, as to descend into the pelvis, where it can be successfully managed.

*Sixthly.* The most favorable position of the head after the expulsion of the shoulders is with the face inclining posteriorly, and when delivery is effected by turning and in aiding the child along in the presentations under consideration, this position should be favored by acting upon the body and shoulders, and also by passing the left

hand or a finger or two up upon the head, when practicable, and making pressure in a direction to favor this position.

We will now suppose the head to be in the pelvis, the face inclining backward into the hollow of the sacrum, the shoulders and arms liberated, the funis compressed, but the child still alive, the pains inefficient, the woman discouraged; there is great anxiety about the life of the child, and we have not our forceps at hand; what shall we do?

Under these circumstances the body of the child should be carried directly forward between the thighs of the mother, until it forms a right angle with the long axis of the pelvis, or even until its back is nearly in contact with the abdomen of the mother, and be supported in this position with the right hand, or, if the labor be not immediately finished, by an assistant. In the meantime, one or two fingers of the left hand should be passed so as to reach the chin or a higher portion of the face, which should be gently depressed and brought down, and at the same time, if necessary, the occiput may be pushed upward by the fingers of the right hand in such a manner as to give the head a quarter turn on its own axis, and bring the mouth and nose directly to the vulva. This manœuvre can usually be accomplished with great facility, especially if favored by a pain or a little voluntary aid of the mother in forcing down the uterus. In order to be successful, however, this evolution must be performed with dexterity and not with force, and should not be attempted until the head has descended or is descending into the hollow of the sacrum; as to separate the chin too early from the breast deranges the natural process of labor, and while the head is high up the body should be kept in a line with the axis of the pelvis, and should be gently swayed from side to side or backward and forward to excite the womb to action, and the chin, when it can be reached, be depressed upon the breast. The uterus should in the meantime be gently compressed and kneaded, with the view of exciting action. When the head has been brought into the position described, the mouth and nose presenting at the vulva, the child, if not asphyxiated or too much exhausted, can breathe freely, and will sometimes attempt to cry many minutes before the head is expelled, and with a little attention to keeping the labia separated and the perineum pressed backward, its chances of life are for a sufficient length of time nearly as great as after complete delivery. The most

favorable position of the woman is on the left side, a little inclining towards the back. The thighs should be widely separated, and the right one supported by an assistant.

The idea of admitting air to the child before the head was delivered was suggested many years ago. The plan proposed was to keep the perineum pressed back and to introduce a female catheter for the admission of air to the nose or mouth of the child, and I recollect being highly gratified with the occasional success of this plan, but I became convinced by observation that the success depended entirely upon the situation of the head. If low down, and the face situated posteriorly, by separating the labia and pressing back the perineum, sufficient air will sometimes be admitted to enable the child to catch its breath. The catheter is of little use. While the body of the child is nearly in a line with that of the mother, the face is so shut in by the perineum and the closure of the vagina, that to supply it with air is an awkward business; besides, when this can be done the operation above described can more easily be performed, and success will be much more certain. When the face is forward—a somewhat rare occurrence—the body of the child should of course be carried backward, when the same object will be attained. With the view of expediting the delivery of the head the vectis or forceps can often be used with great advantage, and the position into which the head is brought by this manœuvre is the most favorable position possible for the operation. The body is held entirely out of the way, and instruments can be applied with great facility and in a moment's time. We are cautioned by authors to guard well the perineum, as though this was the most important duty of the physician; but it seems to me that it is of secondary importance when compared with the life of the child, and especially as it is presumable that after the shoulders, perhaps with the arms up, have passed, the head will follow with but very little danger of this accident. I am aware that it does sometimes happen under the most careful management, but it is probably of rare occurrence in these presentations, and whether it does or does not happen will depend more upon the time taken up in the delivery and the consequent condition of the organs, than upon anything that can be done by protecting the perineum with the hand. Aside from all considerations in reference to the life of the child, I am confident that this is the easiest and most expeditious method of delivering the head. It requires the least possible room,



is the most favorable for the application of instruments, and, whether the child is in danger or not, is the method I usually pursue. It is, perhaps, unnecessary to remark that the manœuvre here recommended has no application to those cases in which the head is detained at the superior strait—a class of cases much more difficult to manage, and attended with much more danger to the child.

The utility and frequent applicability of the plan above imperfectly described might be illustrated by the relation of a very considerable number of cases, in one of which the child absolutely cried before the head was born; but as this paper is perhaps already too long, I shall relate one only.

On the 27th of February, 1851, I was called to see a Mrs. G., an American woman, aged 27 years, who was in labor with her first child at term. She had been married nine years, during which time she had miscarried six times in the early months without much trouble, except that on one occasion she had profuse hæmorrhage, on which occasion only I had attended her. She had been in labor about two hours when I arrived and learned that the membranes had ruptured previous to the commencement of the pains. On examination I found the inferior or pelvic extremity of the body and one foot presenting. The arms, genital organs, and os coccygis of a female child could be distinctly made out, and the situation of the foot indicated that the knee was drawn up upon the abdomen. The os uteri was not fully dilated, but there was no evidence of extreme rigidity, and as the pains were efficient and the process of labor going on naturally, I did nothing of importance except to watch its progress. In less than an hour the os uteri was fully dilated, and the inferior part of the body and foot presented at the vulva and were soon expelled. The other leg was flexed upon the abdomen as is usual in breech presentations. The shoulders, with the arms up over the head, soon followed, and, as the child was not large and the external parts apparently not very rigid, I apprehended no delay in the expulsion of the head. As soon, however, as the head had escaped from the uterus, the pains in a great measure ceased, and what few there were seemed to produce no impression upon the child. I found also that the external parts were more unyielding than I had supposed, and that the funis had ceased to pulsate. By performing the evolution above described the face was made to present at the vulva, when the

child at once began to breathe, and made a feeble attempt to cry. Air was freely admitted to the face by separating the labia, and a quantity of bloody mucus which seemed to obstruct the breathing was wiped away. The woman was urged to aid such pains as she had as much as possible, and an assistant was directed gently to grasp and compress the uterus. In this situation of affairs I waited several minutes, rendering such assistance as I could, expecting momentarily that the head would be expelled. Being disappointed, however, in my expectations, I sent her husband for my forceps, which were in my chaise standing near the house. The child being held by an assistant, one branch was passed over the head and used as a vectis. In this manner the delivery was soon effected. The child was alive and strong, and the mother had a favorable recovery. As nearly as I could judge, five or six minutes elapsed after the child began to breathe and made an attempt to cry, before the head was delivered.

In one case, to which allusion has been made, and which occurred a number of years before, the child breathed and cried stoutly nearly or quite double that length of time. The woman lying on her back, the child was supported in a perpendicular position, standing, as it were, upon its head. On that occasion I had not my forceps with me.

Having spoken of the use of instruments in this class of cases, I would remark that I have lost a considerable number of children by not having them at hand, and I have so often regretted this occurrence that I now make it a point to be always provided with short forceps or a vectis. The forceps is evidently preferable, as both branches may be necessary, while one branch answers the purpose of a vectis perfectly well.

In conclusion, I would remark that others may have understood the directions given by authors differently, and may have practised this or a better method; but it has seemed to me that there were no sufficiently particular directions for the management of this class of cases to enable the inexperienced to manage them with confidence and the greatest attainable success.

If the perusal of this paper should suggest to the mind of the practitioner a single new and practical idea, that may save the life of an individual or serve the cause of humanity, the ends of the writer will have been answered.

## A CASE OF INTESTINAL CALCULUS.

Translated for the Journal from the *Wien. med. Wochenschr.*, by A. H. N.

The patient was 31 years old, of a robust constitution, and perfectly healthy till he arrived at the age of 16.

From his 6th till his 14th year he was employed each summer in the fields guarding cattle, and during this time his principal articles of food were bread, cherries and sorrel.

At the beginning of his 16th year, he began to suffer from frequent attacks of nausea, vomiting and constipation, for which he received medical treatment, and the symptoms disappeared in a measure, so that he was able to resume out-door work.

In the course of six months nausea and vomiting again came on, the latter being accompanied by intense cutting pains in the umbilical region. He again applied to a physician, and in the course of two or three weeks was partially relieved, so that he was able to go into the fields, though not entirely free from abdominal pains.

From his 17th till his 30th year patient continued to work, suffering at irregular intervals in the manner above described, and seeking medical advice every three or four months, when pain was unusually severe. During this entire period his diet was limited to milk, soft-boiled eggs and barley-gruel. The use of meat, pastry or beer was followed invariably by severe pain, vomiting and constipation.

On the 29th of September, 1866, his condition having become no longer supportable, he abandoned work, returned to his parents, and summoned the assistance of Dr. Aberle, by whom this case is reported. Patient was found in bed with the following symptoms:—

He complained especially of obstinate vomiting and severe pain in abdomen, accompanied by great prostration. The pain in abdomen was of a sharp, cutting character, and came on every ten or fifteen minutes, causing him to cry aloud. The abdomen was found to be greatly distended, especially in the ileo-cæcal region, and vicinity of ascending colon. Upon the right side, the abdomen was quite tender upon pressure; upon the left side, however, no pain whatever was experienced, not even when strong pressure was applied.

A more careful examination of the ileo-cæcal region disclosed a tumor about the size of a turnip, above which a smaller tumor could be felt about one-half the size of the other. Both tumors presented an ir-

regular surface, and were exceedingly painful upon pressure; the patient would not admit, however, that the cutting pains had been particularly severe in their vicinity.

At this point it occurred to Dr. Aberle that a case had been reported by Cruveilhier, where 615 cherry-stones were found in the large intestine. Considering, then, the history of this patient, and remembering that, from his 6th to his 14th year, cherries had formed a large portion of his food during the summer, it seemed possible that the tumors here found might be caused by collections of encrusted cherry-stones. This conclusion seemed the more justifiable when the very irregular surface presented by the tumors was considered, and the fact that intestinal concretions are found usually in the large intestine, and cause pain in the entire abdomen. Patient was therefore immediately bled; poultices were applied to abdomen; enemata of oil were given, together with morphine to allay the pain. After this treatment had been followed for several days, the pain and vomiting ceased, and patient was able to leave his bed. The tumors, however, were found not to have diminished in size. As he continued to improve, a strong drastic cathartic was next given, with the hope of breaking up and expelling the concretions. This occasioned severe colic and was rejected. It was noticed soon after this, however, that the tumors had changed their relative position, which tended to confirm the diagnosis already made. As drastic cathartics could not be given, a persistent use of enemata and castor-oil was made, until at the expiration of a year (June, 1867) a stone was evacuated weighing about two ounces.

Upon the seven days immediately succeeding, one stone was passed each morning, and subsequently two to four each day, so that in the course of two or three weeks the patient had been relieved of thirty-two stones, weighing in all above three pounds. In the centre of each of these calculi was found a cherry-stone, increased to so great a size by the substances deposited around it. After the evacuation of these stones the tumors in the ileo-cæcal region disappeared entirely, and the patient has since enjoyed most excellent health.

A chemical analysis of the stones showed them to be composed as follows:—

Inorganic substances	{ Phosphate of lime.
	{ Phosphate of magnesia.
	{ Sulphate of lime.
Organic substances	{ Considerable fat.
	{ Animal lime.
	{ Traces of cholesterine.

The following analysis has been made (in another case) of a calculus which had formed around a plum-stone:—

Water . . . . .	22.5
Substances extracted by alcohol and ether . . . . .	.3
Other organic substances . . . . .	11.3
Phosphate of lime . . . . .	60.5
Phosphate of magnesia . . . . .	4.3
Sulphate of lime . . . . .	1.1

100.0

The above shows the composition of the outer layer, which differs but slightly from that of the inner, as will be seen from the analysis of the layer immediately surrounding the plum-stone, given below:—

Water . . . . .	17.5
Organic substances . . . . .	9.2
Inorganic substances . . . . .	73.3

100.0

The coloring matter, which is undoubtedly identical with that of the feces, was slight, so that even the darkest layers, when pulverized, were but little discolored.

Intestinal calculi are usually small, seldom exceeding in size a hazel-nut, although in rare cases they have been known to attain the size of an apple.—(Förster, vol. ii. p. 153.) They lie imbedded in a fold of the intestine, or in the vermiform appendix, covered with mucus, and although at times their existence may not be suspected during life, they more frequently cause irritation, inflammation, and even ulceration of the mucous membrane. When analyzed, they are found to be composed principally of carbonate or phosphate of lime, and phosphate of ammonia and magnesia, deposited around a fruit-stone or other foreign body.

Fürstenburg has divided intestinal calculi into four classes.

1. *True Intestinal Calculi*.—These are found only in horses, are of a grey or brown color, and have been known to attain the enormous weight of 20 pounds. They are composed principally of phosphate of ammonia and magnesia.

2. *False Intestinal Calculi*.—These are foreign bodies, or concretions, around which deposits of phosphate of ammonia and magnesia have been formed, making their outward appearance identical with that of true calculi.

3. Concretions consisting of a mass of hair, vegetable fibres and various salts; they have a porous structure and an ash-grey or brown color. They are found in the large intestine of horses and swine, and in both

the stomach and large intestine of dogs and ruminating animals.

4. *Hair-balls* (*Ægagropili*).—These are frequently met with in the intestines of animals, and are sometimes found encased in a shell or coating composed of various salts, which gives them a firm, smooth outer surface.—(*Magaz. f. d. ges. Th'rh'lk.*)

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

JAN. 25th.—*Fever—Typhoid?*—in a Patient 69 Years of Age; Death Forty-sixth Day.—Dr. CORTING reported the case.

B. A., aged 69; master mechanic; in affluent circumstances; a large, muscular man, 6 feet 1 inch in height, and weighing 190 to 200 pounds. Cellulo-fatty development considerable; of somewhat Esau-like tendency; habits remarkably regular; uniformly from youth strictly temperate; disposition cheerful, mild and rather retiring; hitherto always healthy, having a large, high, airy, detached, well-ventilated and well-drained residence; became ill about the 1st of December, 1868. Complained of some discomfort in bowels, with a sense of tightness over the abdomen. Thought he would "starve it out," and took only light food for several days. A few days later, took cathartic pills; and these not proving satisfactory, repeated the dose Dec. 10th. Called medical advice two days later.

At that time, Dec. 12th, he was about house, suffering from sensations of weakness only. His pulse was slightly accelerated, being 80, or, at times, a little more. Tongue slightly coated, whitish. Breath very fetid. Skin, heat, &c., not remarkable. Went to his chamber in afternoon.

For some days after this he continued to sit up most, if not all, of the day; was quiet, or dozing a greater part of the time. At night slept well without dreams or confusion. Jan. 1st to 2d, it is recorded "sleep quiet as an infant's."

From Dec. 15th to 18th (third week of illness), had a troublesome headache, which increased on lying down, so that he spent most of two nights in the chair. This then passed off, and he had no more of it, or of any other pain, during the whole of his sickness.

He took to his bed early in the fifth week, and generally retained a dorsal pos-

ture. No bed sores. He invariably affirmed that he was comfortable, and felt no cause of inaction, except weakness. His mind was clear, his intellect generally active; though apparently unaware of his peril to the last. Though often drowsy, he was always easily roused. At times there was some slight slowness of comprehension, but no delirium until the last few hours, and no unconsciousness until he was moribund. *Never any jaclitation or subullus.*

At the first of his illness he did not have chills or sensible increase of temperature; but as the disease progressed several chills occurred (the first Dec. 27th, the last Jan. 14th), generally light, and succeeded by increased but not excessive heat. The severest, which took place January 3d, was followed by such extreme prostration that for several hours he was thought to be in a dying condition.

The pulse, for the first half of the sickness, rarely exceeded 90. After each chill, it continued higher than before. In the last weeks it rose to 100 (Jan. 2d), then 120 (Jan. 4th), and finally, in the last days, to 150, and even more.

The respirations, ranging from 24 to 28 during the middle of the disease, became over 30 (Jan. 4th), for several days were 48, and for the last two days were 60 a minute.

The tongue, from having a thin, whitish coat, became foul, dark, stiff, cracked, and exceedingly troublesome, for these reasons, especially in the last days. There was a proportional amount of sordes on teeth and gums.

Rose spots, though sought for, were never found. Sudamina, not numerous, however, were noticed Dec. 29th, and a few days later. Neither epistaxis nor other hæmorrhage occurred at any time.

The bowels were occasionally distended with gas, and never entirely free from it. A frequent annoyance from this source had been experienced during health. There was never discovered, though often sought for, any tenderness in the iliac region, nor in any other part of the abdomen. From Dec. 13th to 16th, had loose, dark-colored dejections, apparently prolonged effects of the cathartic pills. After this, he required enemata to move the bowels, and the dejections were solid and normal to the last.

In the third week of his sickness his urine was very high colored, and left behind a thick, red deposit in the vessel. Afterwards, it had a normal appearance. Examination in fourth week of illness, by heat

and acid, gave no results. Dec. 29th (fifth week of illness), analysis gave spec. grav. 1012, a trace of albumen, excess of urea—otherwise normal. Jan. 7th (sixth week of illness), analysis gave specific gravity 1008; otherwise normal. Urine was always abundant, and during the latter part of the time was passed into an urinal without rising from the bed.

Though for a few days in the early part of the sickness, about the time of the purgation, there was a slight jaundiced hue in the skin and eyes, the liver gave no other evidence of disturbance, though most diligently examined. The spleen could not be felt.

The sounds of the heart were always normal.

The action of the chest was natural, without râles, or cough, until the last few days. After the prostration of the night of Jan. 3d, from which he never fully rallied, the respiration became gradually more and more labored and oppressed, accompanied with rattle, and coarse râles all over the front. The back could not be examined during the last week. During the last day or two breathing was short, noisy and jerking.

Jan. 4th, in consultation with Dr. Buckingham, a thorough examination was had, especially of the extremities. The legs and feet were moved at will, naturally. There was no swelling, or tenderness, or want of sensibility in them. The same may be said of his arms and hands.

Two days later (three days after the severe chill), the left leg began to swell, and became œdematous. This increased rapidly, till the whole limb was tense; and motionless, apparently through weight and stiffness. No tenderness could be found in any part of it. There was no pain in the limb. Two or three days before death the swelling subsided, and masses could be felt in the ham, and (the day before death) along the course of the great vessels. Jan. 8th the right hand had become puffed, and so stiff that the fingers could not be closed. This entirely passed off three or four days later.

From the commencement of the disease there was loss of appetite, and he generally took the allowance brought to him rather from a sense of duty than from any desire for food. He gradually rejected gruels, broths, &c., and asked for wine and other stimulants. The effect of these was always very satisfactory to the patient, and flattering to friends. For the last two weeks, or more, he lived almost entirely on various forms and compounds of alcohol. Jan 2d

he asked for ale, and piteously begged for more when attendants were disposed to limit the quantity. As an indication of nature's cravings in this direction, which were followed rather than anticipated, the amount taken in twenty-four hours, as recorded for Jan. 6th to 7th, may be instanced. It consisted of one pint and a half of brandy, one pint and a half of old Madeira wine, one tumbler (half pint) of milk punch strong with St. Croix rum, one tumbler of wine whey, three bottles (pints) of ale, three pints of water to dilute the wine and brandy; and three teaspoonfuls of beef tea, tried at three different times and repelled with apparent disgust after each single spoonful.

Death took place, without struggle, Jan. 18th, 1869.

Although the disease is not usual at such advanced age, and in this instance had many perplexing peculiarities, yet by a review of daily notes kept during its progress (of which the foregoing account is a resumé) the diagnosis from the first of typhoid fever appears to be sustained. The autopsy, as follows, made by Dr. John Homans, gives it additional confirmation:—

"A portion of the lower part of the upper lobe of the right lung about four inches in diameter was solidified, of a red color, friable and cedematous. Two small abscesses, about the size of peas, just beneath the pleura, such as are found in cases of pyæmia, were seen in the lower edge of the lower lobe of the left lung.

"In the ileum, at about two and a half inches from the ileo-cæcal valve, was an irregular ulcer, two inches by one inch, penetrating to the muscular coat. Whether it occupied a Peyer's patch could not be certainly determined; the long axis of the ulcer was parallel to that of the bowel. A second ulcer was seen one inch above the first, circular in shape, and not so deep. The mesenteric glands and spleen were normal. The left external iliac and femoral veins were filled with red, partially diffluent, grumous clot; the foot, ankle, leg and thigh were cedematous."

Dr. Jackson, who had examined the specimen when first removed, said the ulceration was opposite the mesentery, and that in one extremity there was some appearance as of a Peyer's patch that was not ulcerated, but it was very equivocal. There was also dilatation of the vessels of the sub-peritoneal cellular tissue, as is often seen in typhoid cases. Ulcers, resulting from acute disease, and unconnected with typhoid, but seldom occur in this part of the intestine. The spleen was normal in Dr. C.'s case; but

it often subsides after the second week if it has been enlarged. Typhoid fever is certainly a disease of the comparatively young, but he well remembered that Dr. Jas. Jackson used to speak of its occasional occurrence in old persons.

*Feb. 8.—Typhoid Fever after Middle-age; Peyer's Patches.* Dr. COTTING, in relation to the case reported by him above, said that, according to the books, the age of the patient was against the diagnosis, but that the general symptoms during life and the autopsy justified it. Aitken, in his work on "The Science and Practice of Medicine,"\* one of the last but not the least, says old persons cannot have typhoid fever, only in exceptional cases, as Peyer's patches disappear after the age of 45-50. The following is Dr. Aitken's statement:—

"This lesion in the ileum is especially recognized as the 'anatomical sign' of enteric or typhoid fever. It is necessary to remember, however, in connection with the age of typhoid-fever patients, that the solitary vesicles and the aggregate glands of Peyer are known to be most fully developed and most active in youth, up to the age of early manhood; after that time they begin to disappear, and are obviously less active in the adult after thirty years of age. Structure and function seem to be alike impaired by age, till at length, after forty or forty-five years, traces only of their existence are apparent, or they have altogether disappeared. The gland substance (whose structure has been so well described by Dr. Allen Thompson, Kölliker, and Bochni) no longer exists; and the places where the patches of Peyer once were, may be detected only after careful examination—a mark of varied form and character being all that indicates the place of the patch. There is, therefore, a good anatomical reason why typhoid lesions are rarely found after fifty years of age, and seldom after forty. Dr. Jenner records only three cases beyond fifty—namely, one at fifty-one and two at fifty-five. Dr. Wood has observed one case at fifty-five years of age. Dr. Murchison notes two cases above sixty-five, and refers to five other cases between 60 and 75, related by MM. Lombard and Gendron. Dr. Wilks refers to the case of a woman, aged 70, of very doubtful history (Path. Society, 1861). These exceptional cases are explicable when it is known that the existence and functional activity of these glands are sometimes prolonged for an indefinite term of years beyond the usual period of

\* The Science and Practice of Medicine, by Wm. Aitken, M.D. Edin. p. 375.

their existence. On the other hand, it is in childhood and early life that these glands are most obvious, and their functional activity the greatest; and therefore it is extremely significant to find that 'more than one half of the cases of typhoid fever occur between 15 and 25 years of age; and in very early life the proportion of cases of typhoid would be greater were it not that many children laboring under this disease are described as cases of 'Infantile Remittent Fever'' (Murchison).

Dr. Cotting added that he had sought for authority for the statement of Aitken, but had been unable to find any. None of the works on anatomy, general or pathological, at hand, contained any intimation that Peyer's patches disappeared in the later periods of life; nor was there, so far as he could find, any allusion to such disappearance in other treatises on Theory and Practice. The morbid anatomists he had applied to were not aware of any facts to support the statement. In Kölliker's Human Histology, Vol. II., p. 102, is a plate described in a foot-note as a "Portion of a Peyer's patch of an old man," which was the only reference to the subject he had seen. This was not figured as an exception, and there is nothing in the context to show that it was an uncommon thing to find Peyer's patches in old men. Aitken makes his statement as though the disappearance was an established and well-known fact. "The gland substance," he says, "no longer exists." Is his great work to be judged by this specimen of it?

Dr. Jackson said he had seen cases where there was no appearance of these patches, but he did not remember the ages of the subjects. He had examined a man 44 years of age, who died of typhoid fever, with perforation of one of the ulcerated patches.

Dr. Hodges said Peyer's patches vary in form, number and dimension; frequently, instead of being elongated, they are round, and if of small size may seem of doubtful identity. He had never seen or heard before this evening that they are not found after a certain age; they belong entirely to the mucous coat, and might be swept away by disease; formerly they were regarded as pathological by some writers, but now they are universally considered to be normal. He had never thought of ascribing to age their absence or diminution in size. For purposes of demonstration, or in the dissecting room, he did not recollect having been unable to find them. He alluded to a fatal case of poisoning by antimony, in which attention was attracted

to the strongly marked Peyer's patches and the appearance of ulceration they presented. The specimen was shown by Dr. Jackson, in 1848.

Dr. Jackson said that he had long ago remarked that the patches frequently vary from their typical form. They may be circular instead of elliptical, and quite small; and he had prepared a specimen for the College Museum to show this fact. If typhoid fever occurs, these patches will probably be diseased; and then the mistake will very naturally be made of supposing that there is disease, and, it may be, ulceration in the mucous membrane as well as in the patches. Well-attested cases of a second occurrence of typhoid fever in the same individual have been observed. And it would be curious to see if in such there would be disease in the patches, but higher up than usually found; the patches below having been previously destroyed. In reference to Dr. Cotting's case, the ulceration was certainly the result of acute disease; and such disease, and particularly ulceration, is rarely seen in the lower part of the ileum, except in cases of typhoid fever. Peyer's patches he had never seen acutely inflamed in adults, except in fever; but in a child that died of acute dysentery, and in a very severe form, he had seen them coated with lymph, as well as the mucous membrane of the large intestine; and he had recently seen the same appearance in a little child three years old that had died of acute follicular enteritis. In the exanthemata of children and in croup the patches are said to be sometimes inflamed. Redness he had seen several times in such cases, but nothing more; and he was inclined to doubt its pathological importance. Dr. J. alluded to the redness of the patches that he had observed in persons who had died whilst the process of digestion was going on, and in whom there was no reason to suppose that the appearance was in any way the result of disease. These cases occurred between twenty-five and thirty years ago, and have been fully referred to in the published Catalogue of the Society's Museum. He had never, however, seen any confirmation by others of this observation.

At a meeting of the New York Pathological Society, Dr. Lewis Smith exhibited the appendix vermiformis removed from a mulatto child, two years old, who died of broncho-pneumonia. The specimen was interesting on account of its extreme length, six inches.—*N. Y. Medical Record.*

# Medical and Surgical Journal.

BOSTON: THURSDAY, APRIL 22, 1869.

WE cheerfully accord considerable space for the paper of Dr. H. K. Oliver, read at the last meeting of the Society for Medical Improvement.

MR. EDITOR, —I beg your insertion of the following remarks made before the Boston Society for Medical Improvement concerning the comments of Dr. J. B. S. Jackson upon a clinical lecture by Prof. Oppolzer. Yours truly,

HENRY K. OLIVER, JR.

At the meeting of this Society on the 8th ult., Dr. J. B. S. Jackson offered some comments upon the clinical lecture on "Ulcus Rotundum Ventriculi" by Prof. Oppolzer, of Vienna, which appeared, translated by Dr. Lincoln, in the Boston Medical and Surgical Journal for March 4th. Under other circumstances—had, for example, the comments been offered by a gentleman less distinguished than Dr. Jackson, or had a difference of experience, simply, been submitted by him, it would not have been worth while to take up the time of the Society by again referring to the subject. But the case is otherwise. Dr. J. is a person of authority in the profession, and he has, in submitting his remarks, made strong suggestions of the incompetency of Prof. Oppolzer as a clinical teacher. Moreover, the comments have appeared in a public medical Journal, accompanied by advice to young men which signifies, virtually, "wherever you go in pursuit of your medical studies, avoid the wards of Prof. Oppolzer. He is a man of indecent ideas; he is, moreover, not to be relied upon as an accurate teacher."

There are many young men in this city who, at some period in the past twelve years, have listened with pleasure and, as they supposed, with profit to the teachings of Prof. Oppolzer. They feel that injustice has been done him, and they ask for a hearing in his behalf.

I will take it for granted that the translated report of the lecture in the Medical Journal, is, as far as it goes, a correct one, and will now ask permission of the Society to examine the objections put forward by Dr. Jackson.

In some of his comments upon the lecture, Dr. J. seems to me to have made much of trivial points, and in others to have misinterpreted the idea intended to be conveyed, while in others he seems to disagree, not with Oppolzer alone, but with many writers of acknowledged reputation.

Of the points which seem to be of little moment, the first is that of the selection of a title of the affection. Oppolzer uses the terms "Ulcus Rotundum Ventriculi" and "Perforating Ulcer." They did not, however, originate with him. Rokitsky employs the term "Perforating Ulcer," as does also Abercrombie. "Ulcus Rotundum" is used by Müller. Cruveilhier prefers "Simple Ulcer" and "Chronic Ulcer." All these names are more or less appropriate, and yet an objection to each is made by Brinton. Dr. Jackson,

while giving, in his published comments, an excellent reason for calling the affection "Round Ulcer\*," favors no name but "Chronic Ulcer." But the ulcer is not always chronic. Rokitsky says,† "This process may run an acute course; though it is commonly chronic."

Cruveilhier, who, if I am not in error, first suggested the name "Simple, Chronic Ulcer," intimates more than once that the lesion may run an acute course. He says, for example:—"It is evident that the acute ulcer is much more likely to induce this perforation than the chronic ulcer, which latter is almost always followed by protecting adhesions."

Brinton§ says that "its progress is sometimes so rapid as to penetrate the stomach and destroy life in a few days."

See also Chambers.||

In regard to the use of Latin by Oppolzer, which is so strongly criticized by Dr. Jackson, we can hardly believe the latter gentleman to be really serious. The Latin has been and is now the language of science—the universal language. Until within a comparatively short time all the lectures in the Medical School of Vienna were delivered in Latin; and now, the prognoses by the bedside are almost always given in this language. Do we not all of us employ the Latin constantly? Do we not say tinnitus aurium, fistula in ano, delirium tremens, angina pectoris, &c. &c.? Are we not taught hundreds of technical terms in human anatomy, from Calvaria over Pons Varolii to Os Calcis? And do we not all write prescriptions in Latin, good and bad?

Dr. Jackson thinks the term "bits of ice" is better than "pills of ice." I had almost determined to pass over this objection as being really too trivial to dwell upon, but as Dr. J. has thought it worth while to make inquiry of the translator of the lecture with regard to this particular point, I may be pardoned for alluding to it. "Eispillen" is a term in not infrequent use in the Vienna Hospital, and means something more than "small bits of ice." It includes, namely, a suggestion as to the method of administration. The connection in which it is used by Oppolzer shows of itself that he intended that the ice should not simply be held in the mouth but be swallowed. He therefore says "the best remedy is Eispillen," which, since we do not commonly use the term "pills of ice" in English, might be better translated by a phrase such as the following:—"The best remedy is bits of ice, small enough to be swallowed whole." The use of this term "Eispillen" is strictly in accordance with the genius of the German language, in which an idea which we should express by a phrase is expressed by a single, though complex, word.

The next objection of, as it seems to me, trivial importance, is to the use of the term "Magistery of Bismuth." This is "nothing more

\* "The ulcer is by no means always round, though it is sometimes remarkably so, and always tends more or less to that form."

† Pathological Anatomy (Sydenham translation), vol. ii. page 31.

§ Anatomie Pathologique. Maladie de l'Estomac. Liv. x. p. 4.

|| On Ulcer of the Stomach, p. 16.

§ Digestion and its Derangements, p. 362.

than the substrate," and it may be found by reference to the index in the United States Dispensatory, a work of much later date than the "old days of alchemy."\*

In other portions of the <sup>1</sup>ecture criticized by Dr. Jackson, he has evidently misapprehended the idea which Oppolzer intended to convey. In one instance, also, Dr. J. has, in quoting from the translation, inadvertently added a comma in such a position that the meaning is thereby obscured.

First, the word "continuous" is alluded to as being a very mild term to express the character of the pain in case of perforation. But Oppolzer is not speaking of the severity of the pain in such cases, in either of the two places in which he uses the word. He simply calls attention to the fact of its unmitigating character as a symptom of perforation and peritonitis.

Dr. J. also misinterprets Oppolzer's idea when referring to the use of "conche preparata." The latter mentions the composition of this remedy in such a way as not only not to encourage, but virtually to interdict its employment.

I next come to the subject of the excrement of dogs, with regard to which Dr. Jackson speaks with so much feeling; and I must be allowed to say that I cannot conceive how a careful reader could fail to appreciate, as Dr. J. has, the meaning of Oppolzer here. "(Dog's dung has been employed for the same purpose.)" This is simply a matter of history; and there is not the slightest intimation that Oppolzer ever used dog's dung, or that he advises its use. To make it, moreover, quite clear that the reference to this substance was a matter apart from the main current of his remarks, the reporter enclosed it in parentheses, the purpose of which Dr. J. most unaccountably—I had almost said uncharitably—suggests can be for no other purpose than to cover up the indecent idea which he attributes to Oppolzer.

Within the memory of more than one member of this Society, human urine mixed with molasses was frequently prescribed by the most esteemed physicians of a neighboring city, as a remedy for croup, and that without throwing over it the "mantle of a foreign language." This fact was mentioned some time ago at a meeting of the Society for Med. Observation, by a late Prof. of Clinical Medicine, but not one of those present imagined for a moment that he was accustomed to employ such a mixture in his own practice.

The sentence which Dr. Jackson has copied incorrectly is the following: "The nutrition is often but slightly affected, provided there is no hæmorrhage and cardialgia does not set in during the night." In the transcription Dr. J. has inserted a comma after the word hæmorrhage. The clause, as read correctly then, is easily understood, or if not, it is abundantly explained by the sentence which follows it.

As regards the points in which Dr. Jackson differs from Oppolzer, and in differing from him differs from well known authorities, the first is concerning the size of the stomach. Dr. J. has never found anything remarkable about the size of the organ in round ulcer, excepting in one case.

\* A friend has suggested the fact that we sometimes speak of saturnine colic, aqua regia, elixir opii, &c., and, quite often, of lunar caustic.

Cruveilhier,\* in speaking of contraction of the pylorus as affecting the capacity of the stomach, says, "The contraction of the pylorus is divided into two classes; in one there is enormous dilatation of the stomach; . . . I have cited elsewhere a case in which contraction was the result of the cicatrix of a circular ulcer which occupied the pylorus."

Rokitansky† says:—"Contractions or stenoses are the result . . . of cicatrization after ulcerative destruction of the tissue at this" (pylorus) "and at other points." "In common stenosis of the pylorus it (dilatation) is mainly developed at the splenic portion; it equally reaches an enormous degree, and proves fatal at last by paralysis."‡

Brinton§ speaks of the local dilatation of different parts of the stomach from local failure of muscular contraction, from the destruction of the tissue by the ulcer.

Chambers|| says that in thirteen cases of dilated stomach at St. George Hospital, two had chronic ulcer.

See also Foerster and Reynolds, and others.

As regards the diminution of the size of the stomach, Rokitansky says: "A diminution of the stomach is sometimes produced as a permanent condition in consequence of an insufficient supply of nutriment; in other cases it is the consequence of textural disease, especially that produced by cicatrization of extensive ulcers.

And again, "when the ulcerative process has involved the muscular coat . . . a union (may be) gradually effected. We find then corded cicatrices which shorten the stomach in its transverse diameter."¶ . . . "

Brinton\*\* says:—"Where the previous loss of substance has been considerable, this process" (of cicatrization) "often seriously affects the shape and capacity of the stomach."

See also Foerster and Habershon.

Dr. Jackson has never seen the slightest appearance of an hour-glass contraction of the stomach to which Oppolzer refers. I make the following quotations:—

Rokitansky,†† in speaking of "congenital malformations of the stomach, in which an annular contraction divides it into a cardiac and a pyloric stomach," says:—"Similar and various other malformations are observed as acquired conditions; they have their origin mainly in loss of substance and in cicatrization of the so-called perforating gastric ulcer."

Budd‡‡ says:—"When the ulcer is large and situated across the lesser curvature of the stomach, the process of healing, by the contraction that attends it, often permanently alters the shape of the stomach, diminishing its breadth at that part. This change of shape is very striking in these two preparations from the King's College Museum, in each one of which the stomach is divided into two pouches, as if by a string passed transversely round it, looping up the greater curvature towards the lesser."

\* Op. cit., liv. xii. p. 2.

† Pathological Anatomy (Sydenham Society), vol. ii.

p. 22. ‡ Ibid., p. 22. § Op. cit., pp. 22 & 23.

|| Lectures, p. 505, note. ¶ Op. cit., p. 23.

\*\* Op. cit., p. 32. †† Op. cit., p. 21.

‡‡ On the Organic and Functional Diseases of the Stomach, p. 115.



Brinton, continuing the remarks above noted with reference to cicatrization, says:—"In such instances the cicatrix corresponds to a constriction of the organ, which gives it more or less of an hour-glass shape. And in extreme cases the contraction amounts to an absolute stricture which impedes the transit of food, and thus gradually causes great hypertrophy and dilatation of the over-distended segments of the stomach behind the obstruction."

See also Foerster, Habershon, Heschl and Bennett.

Dr. Jackson remarks:—"Oppolzer speaks of the continual contraction of the organ as the ulcer extends;" and adds, "but in ulcers of the largest size, I have seen nothing of the kind." Dr. J. does not here give the exact language of the translation, which reads, "The stomach is diminished in size, when the ulcer is extending and yet continually contracting."

Cruveilhier\* says:—"It is not uncommon to find ulcers of the stomach completely cicatrized, except at a single point, where the ulcerative process still goes on and ends by perforation." And again, "Perforation may occur; . . . after cicatrization, and it may in such a case be the result, first, of a fresh ulceration which is established at the very bottom of the cicatrix or at a point in its circumference, . . ."

To the remark of Oppolzer that catarrh relaxes the muscular fibres and thereby gives rise to dilatation, Dr. Jackson opposes the statement that the mucous membrane is generally quite healthy.

Rokitansky† says:—"There is no further morbid appearance beyond a thickening of the parietes in the immediate neighborhood of the ulcer, and a tumefaction of the gastric mucous membrane." And again,‡ whilst we find the tolerably uniform irritation within, giving rise to hypertrophy of the mucous membrane. . . . And again,§ "It (the ulcer) is invariably accompanied by chronic catarrh and hemorrhage of the gastric mucous membrane: . . ."

Budd|| says:—"Chronic inflammation of the kind we are now considering sometimes results . . . when the pyloric orifice is slightly strictured . . . the stomach cannot always completely empty itself, and what remains in it, after digestion is over, frets and inflames its mucous coat."

Brinton,¶ in speaking of localized dilatation, says:—"It seems not improbable that in all of them the accumulation of the gastric contents, which form the immediate cause of the dilatation, and thickening of the coats of the stomach," &c.

Abercrombie\*\* divides the ulcer of the stomach into three classes, in two of which he says the mucous membrane is healthy, while in the third it is generally diseased.

See also Reynolds, Foerster, Habershon.

There seems to be little doubt that the coats of the stomach are apparently healthy in some cases, while it is quite unlikely that Rokitansky would

make such statements as I have quoted without his experience justified him in so doing.

The next objection is to Oppolzer's statement of the combination of *ulcus rotundum ventriculi*, and chronic maladies of the stomach in general, with tuberculosis pulmonum and phthisis. In this phrase the translator has omitted\* the word "schliesslich," which means here "in the end." The sentence with this restitution will read:—"Most cases of *ulcus rotundum ventriculi*, like chronic maladies of the stomach in general, are, in the end, combined with tuberculosis pulmonum and phthisis."

Langston Parker† says:—"We shall observe, however, in pursuing our investigations, that these forms of pulmonary irritation" (as results of gastric affections), "if continued, soon degenerate into one of the forms of inflammation I have alluded to, and are, in some instances, followed by phthisis, of which Andral, De Larroque and myself have reported examples."

Parker, also, in speaking of one of Louis's cases of phthisis, says:—"In this case it certainly appears that the disease in the chest may in the first instance be produced by the gastric irritation, which terminated in ulceration of the coats of the stomach."

One of the conclusions Parker arrives at is ‡:—"Inflammatory irritations of the digestive organs are readily, under certain circumstances, transmitted to the lungs, where they may become the source of various diseases, as cough and disordered respiration, bronchitis, pneumonia, hæmoptysis, and even tubercular phthisis."

Brinton states that out of twenty cases of his own four had phthisis, and adds:§—"The gastric ulcer is not unfrequently accompanied by pulmonary disease. . . ."

And again||:—"Lastly, as regards the complications of the gastric ulcer with diseases of other organs, the best information which I have been able to collect is derived from the writings of Jaksch, Dittrich, and Engle. Comparing the statements of these observers, which refer to a total of some hundreds of cases of the lesion, we find them all agreeing as to the frequency with which the ulcer is associated with pulmonary tubercle. This complication appears to be present in about nineteen or twenty per cent. of the whole number of ulcers."

Brinton, however, does not seem inclined to think that even the above percentage is large enough to prove any immediate connection between the two affections, and adds¶:—"These complications seem to indicate what indeed there is little difficulty in supposing—that this long and exhausting malady predisposes the constitution to a variety of other diseases; . . ." This is probably the view Oppolzer takes of this point, judging from his use of the word "schliesslich."

\* In case of perforation Oppolzer states that

\* Omitted purposely, as Dr. Lincoln informs me, having been considered superfluous in the translation. After reflection, Dr. L. agrees with me that the position of the word gives it a different signification from that which, at first sight, it seemed to have.

† The Stomach in its Morbid States, p. 211.

‡ Op. cit., p. 253.

§ Ulcer of Stomach, p. 152.

|| Op. cit., p. 52.

¶ Op. cit., p. 53.

\* Op. cit., liv. x.

† Op. cit., p. 30.

‡ Op. cit., 32.

§ Op. cit., p. 34.

|| On the Organic and Functional Disorders of the Stomach, p. 83.

¶ Op. cit., p. 22.

\*\* Pathology and Practical Researches on Diseases of Stomach, &c., pp. 19, 20.

the liver is pressed back by the air in the peritoneal cavity, and that there is consequently a resonance on percussion in the region of that organ." Dr. Jackson does not remember seeing such a displacement in any dissection, nor has he heard any reported here, and adds:—"The peritoneum is not distended by rupture of the stomach, as the pleura is by rupture of the lungs." I remark, in the first place, that Oppolzer does not say that the displacement of the liver may be seen on dissection; he is referring to the appearances which may be noticed immediately after the accident of perforation. It would hardly be expected that the liver would remain pressed out of place after the cause of such displacement—the air in the peritoneal cavity—was allowed to escape by the section of the abdominal walls. With regard to the possibility of the escape of air from the stomach which Dr. J. doubts, I would remark that, considering the fact that a development of gas in the stomach in the disease of this organ under consideration is not uncommon, it would not be surprising if, when perforation ensued, some of it should escape into the cavity along with the other contents of the stomach; especially if the rupture were occasioned by external violence, or by the effort of vomiting. The amount of air thus escaping, however, would seldom cause much distention, and would probably escape observation by any means of investigation except that mentioned by Oppolzer, namely, percussion of the right hypochondrium. That such a condition of things as is stated by Oppolzer may actually exist, in opposition to the belief of Dr. Jackson, I call attention to the following:—Dr. Charrier reported a case\* of perforation into the peritoneum, observed in a lady who had presented, for a certain length of time, gastric symptoms of an indefinite character. There were two perforations which were the result, without doubt, of two ulcers more or less old. *The depression of the liver and its separation from the diaphragm was noticed, due to the sudden escape of gas into the peritoneum.*

Dr. Jackson objects to the use, by Oppolzer, of the term "necrosis" as applied to the death of soft tissues. This use of the word is, however, quite common in Germany, and is sometimes met with in other than German authors.

Rokitansky, on page 159, vol. i., heads a section thus:—"GANGRENE, NECROSIS," and commences the section as follows:—"Like normal textures, new formations of every kind, tumors, exudates, pus—are liable to become necrosed. Fluids degenerate through necrosis to gangrenous ichor. . . ."

Piorry speaks of "Necrosie péritonique. Gangrene du péritoine." (Nysten.)

It is also used in English: "Necrosis Cerealis—Ergotism—Morbus Cerealis." The gangrene sometimes following the use of ergot. (Dun-glison.)

Some points in regard to the treatment, which Dr. Jackson thinks is certainly remarkable, have already been noticed by me. One or two other criticisms are made, the first of which is of the use of belladonna. "This," says Dr. J., "is probably given with a view to relax the muscular coat of the intestine, but we should hardly like to

give enough of the drug to produce such a marked constitutional effect, when we have so many perfectly safe laxatives at our command." To this I reply, that there is no reason to suppose, from the words of Oppolzer, that the drug is given as a laxative, and, second, that when used with this view belladonna is a perfectly safe drug. First, Oppolzer says:—"Give bismuth with morphia, or, if the patient is inclined to be constipated, with belladonna." That is to say, when the patient is inclined to be constipated, give instead of an anodyne which will aggravate the constipation, like morphia, one like belladonna, which will not constipate. But granted, secondly, that Oppolzer recommends the belladonna in order to move the bowels. This property it has confessedly, and it produces its effect in this regard without exciting any dangerous symptoms.

Stillé\* says:—"Trousseau declares belladonna to be the remedy, *par excellence*, for habitual constipation. It does not purge nor produce loose stools, but only renders defecation easier."

"Cases illustrative of the efficacy of this treatment are reported by Fiessinger,† by Blache,‡ and by Fleury.§

"A similar approbation of the medicine is expressed by Leared,|| by Wilson Fox,¶ and by Fleming."

I will also quote from Wood's Therapeutics and Pharmacology, p. 800, under the head of Belladonna:—"In the internal neuralgic affections of the abdomen, as gastralgia, enteralgia, nephralgia, &c., the external use of the medicine should be resorted to when the complaint is complicated with vomiting or purging, while opium is used internally. But, in the contrary condition of constipation, it would be better to try the effects of extract of belladonna internally."

Finally, Dr. Jackson objects to the employment of local bleeding and cold application to the epigastrium in perforation, as being useless and as tending to the patient's discomfort, and therefore cruel. Dr. J. would, however, allow active treatment to be employed if there is the slightest chance for the patient under such circumstances.

I reply, first, perforation of the stomach is not invariably fatal.

Habershon\*\*—"Where perforation has taken place, and the symptoms of peritonitis suddenly produced, there is a slight chance that life even then may be prolonged."

Bennett††—"Many cases are on record of evident perforations of the stomach, which have been cured by judicious treatment; . . . such perforations have a great tendency to become re-closed by the rapid formation of fibrous lymph round their edges."

Valleix‡‡—"Finally, and it is the observations of Delpsch which furnish us with this very interesting information, we see that perforation of the

\* Therapeutics and Materia Medica, p. 778.

† Charleston Medical Journal, xi. 266.

‡ Annuaire de Thérap., 1819, p. 43.

§ Archives Gén. de Méd., Mars, 1838.

|| On Imperfect Digestion, 4th ed., p. 184.

¶ Dyspepsia, p. 221.

\*\* Pathological and Practical Observations on the Alimentary Canal, Oesophagus, Stomach, &c., p. 84.

†† Commentary on case, p. 446.

‡‡ Vol. ii. p. 573.

\* Quoted in Valleix, vol. ii. p. 569.

stomach need not be immediately fatal, even when it takes place into the peritoneal cavity."

Wood\*—"Under any plan of treatment, the case must be considered as almost desperate; but the one described affords some little chance of a favorable issue."

Brinton†—"In other instances, the effusion of the gastric contents is confined to the immediate neighborhood of the perforated spot. . . . In other instances, the portion of peritoneal cavity circumscribed by the inflammation continues to suppurate, and is thus gradually converted into a chronic abscess, which finally discharges its contents at some point or other of its exterior. There are about twenty cases of this kind on record."

2d. Local bleeding is recommended by several writers in perforation of the stomach.

Wood‡—"Peritonitis dependent upon perforation of the alimentary canal, or other cavity, requires a somewhat peculiar treatment. Depletion may be pushed as far as the strength of the patient will permit."

In the case of recovery alluded to by Bennett, leeches were applied to the abdomen, and Cruveilhier§, in a record of a case to which he was called, says:—"I diagnosticate a perforation of the stomach (15 leeches, cataplasms to the abdomen)."

Valleix|| in speaking of the treatment of peritonitis as a consequence of perforation, says:—" . . . leeches are to be employed as in the preceding affection, taking the precaution to graduate these means to the condition of the (vital) forces of the patients."

Other writers include the treatment of perforation in that of peritonitis from other causes, recommending pretty generally bleeding, and, as a rule, say nothing of making peritonitis from perforation an exception. Stokes, however, remarks that in most of these accidents the powers of life sink so rapidly that bleeding, either local or general, cannot be attempted.

3d. Concerning the employment of cold applications to the epigastrium.

Copland¶ says, under the head of the treatment of peritonitis:—"It was advised by the late Dr. Sutton, of Greenwich, and by some German physicians, to apply cold or evaporating lotions, or ice, to the abdomen in peritonitis." Copland prefers warm applications, but adds:—"Dr. Symonds, however, remarks that, in some cases, cold evaporating lotions have seemed preferable to other applications, the evaporation being accelerated by blowing the surface with a common bellows. 'The relief,' he adds, 'has been most striking, even when the disease was too far advanced for a cure.'"

I will simply add that the employment of cold in some affections is far more common in Vienna than here. We are, for example, a little disinclined to apply cold to the joints in acute rheumatism; but, in Vienna, this is the chief means of treatment of this affection, and I do not remember to have seen any cardiac or other complication result from it.

This finishes what I have to say of the special points of Oppolzer's lecture which have been

commented upon by Dr. Jackson. But I beg the patience of the members of the Society for a short time longer.

In a previous volume\* of the Boston Medical and Surgical Journal, there is a report of a lecture on "Ulcus Rotundum," by Prof. Oppolzer, communicated to the Journal by Dr. J. C. White, immediately after his return from Vienna. This report, as I understand from Dr. White, was made up from his own notes of Prof. O.'s lecture. I purpose quoting one or two portions of this report.

"It (Ulcus Rotundum) often occurs in tuberculosis, though there is no connection between them."

"Sometimes it affects the pyloric orifice itself, and no food can pass into the intestine. The abdomen sinks, the stomach is distended even below the umbilicus, and unless the pylorus dilates again, marasmus carries the patient 'to the ground,' as the Germans say. Enlargement of the organ takes place in the case above mentioned, on account of paralysis of its muscles, induced by the collection of fluid in its cavity. Enlargement may also be caused by the chronic catarrh which generally accompanies the ulcer, and in this case we shall have the usual symptoms of dyspepsia. The stomach has been so much enlarged as to simulate pregnancy, and has been punctured for ascites. . . . An ulcer may, on the other hand, cause contraction of the organ by its cicatrix, or of the pylorus, as in cancer."

"Oppolzer gave him pills of chopped raw veal. . . ."

"If constipation contra-indicates the use of opium, we must substitute extract of belladonna."

"Ice pills given often, &c."

"If chronic catarrh and enlargement of the organ are present, we must direct our treatment to the former. . . . The mucous membrane of the stomach is usually thickened and covered with a dense, pale mucus, which does not allow the gastric juice to come in contact with the food. . . ."

In closing the report Dr. White remarks:—"From the frequent occurrence of this disease in Vienna, I am inclined to think that many of our cases of 'dyspepsia' might be resolved into the same, were we not so easily satisfied and blinded by that very unsatisfactory word."

On page 329, of the same volume, there is another lecture of Prof. Oppolzer, "On the Therapeutics of Diseases of the Stomach," translated from the "*Zeitschrift der k. k. Gesellschaft der Aerzte zu Wien*," by Algernon Coolidge, M.D. From this lecture I will make a few quotations.

"I have often seen good effects from local bleeding, in . . . ulcers producing inflammation in their neighborhood, or in the diaphragm. But local bleeding I used only in strong persons and when great tenderness existed."

"I have often with good success employed heat and cold."

"In ulcers of the stomach I preferred opium to its tinctures. In persons suffering at the same time from obstinate constipation, I was obliged to resort to belladonna or conium."

"In danger of perforation of the stomach, the

\* Op cit., 5th ed., p. 174.

† Op. cit., 6th ed., p. 856.

‡ Vol. iii. p. 331.

† Op. cit., p. 173.

§ Liv. xv. p. 2.

¶ Dict. Pract. Med.

\* Vol. lvii. p. 269.

best agent is opium, which stops peristaltic motion, thereby favoring the chance of adhesion."

"In ulcers of the stomach of any kind, I always prefer the carbonates of the earths to those of the alkalies, because they irritate less the surface of the ulcers."

"Vegetable charcoal is useful . . . As common wood coal generally contains splinters, which cause irritation, it is best to use coal made of burnt bread."

I call particular attention to the remarks concerning the use of opium, and to the avoidance of irritating substances.

To return to the lecture which is the subject of Dr. Jackson's comments, and to the fact that important points do not receive mention therein, one has only to know that less than fifteen minutes is required to read the lecture in the original, in a deliberate manner, and to be informed that Oppolzer spends from an hour to two hours by the bedside of a single patient, to be convinced that a very full report has not been given.

Finding, as I have, that Dr. Jackson's experience in the round ulcer has differed from so many authorities, it has occurred to me that the opportunities for observing the disease might not be so good in this country as in Europe. Dr. J., for instance, has only seen two or three times a cicatrix that he thought might be caused by the healing of a chronic ulcer. He admits, however, that cicatrization is remarked upon by authors as sufficiently common.

Brinton\* says:—"The healing of such ulcers by a process of cicatrization, appears to be far more frequent than is generally supposed. The examinations of Dittrich, Jaksch, Willigk and Dahlrup reveal a total of 147 scars, and 156 ulcers, making the proportion of the former nearly equal to that of the latter." Brinton does not hesitate to admit the statements of these observers, and adds:—"In favor of these results we may point out, how easily cicatrices of small size might escape discovery, in less careful scrutinies of the mucous membrane of the stomach than those made by these excellent observers."

Rokitansky†:—"A cure may result at any of the stages, as proved by the various cicatrices frequently observed on the inner surface of the stomach."

See also Reynolds, Valleix, Foerster, Heschl and Bennett.

No one will question Dr. Jackson's faculty of observation, and there is no alternative but to accept the conclusion that the affection is comparatively rare in this country. I quote from Dr. Wood on this point. Dr. W.‡ says, in speaking of the percentage of the frequency of the simple ulcer of the stomach, given by Brinton:—"This is certainly much beyond anything to be met with in the United States. During more than 25 years in which I was physician of the Pennsylvania Hospital, I did not meet with one fatal case of simple ulcer of the stomach; and my colleague, the late Dr. Pepper, assured me that his experience corresponded with my own. Nor did I see, in the same institution, more than four cases in which the symptoms authorized the inference that they might

proceed from simple ulcer of the stomach; and of these, two at least were in foreigners. In private practice, moreover, instances of the kind are extremely rare. The difference can be ascribed only to the mode of living. . . ."

In conclusion, if the writers whom I have referred to in this paper are to be relied upon, I think I am justified in saying that the evidence of Prof. Oppolzer's incompetency as a clinical teacher is not sufficient to warrant the advice to young men so publicly given by Dr. Jackson. If the latter gentleman is right in his opinion, by all means let the fact be widely known, for a teacher with such a decided and extraordinary faculty of commanding attention and of imparting information as Prof. O. is a very dangerous person if his matter is not accurate.

I did not intend at this time to attempt any eulogy of Oppolzer, but I cannot forbear, before closing, to mention a remark made by Dr. Bowditch after his return from Europe a few years ago. On my asking him how he liked Prof. Oppolzer, he replied, with earnestness, that he certainly was the finest clinical lecturer he had ever listened to; but he immediately qualified his remark—if it can be called qualifying—by adding, "I don't know; Louis, in his prime, was perhaps his equal."

And again, in a letter from Vienna to the *London Medical Times and Gazette* of May 19th, 1860, may be read the following:—"The most frequented clinic is, with justice, that of Prof. Oppolzer. . . . Before all things is his teaching rich for the investigation of disease; and so exact and conscientious an analytical diagnosis is nowhere else to be met with. He is the very model of a clinical teacher. . . ."

(At the completion of the reading of this paper, Dr. Jackson remarked that he still stood by the statement of his experience as recorded in the article published by him. The writer desires to say that no question is raised as to the reliance upon this record. The friends of Prof. Oppolzer simply ask that respect may also be paid to the statement of his experience.)

WE trust the JOURNAL readers will endorse the wisdom of giving the preceding article at length and without abbreviation of the references to authorities. It is not merely that this course was the most respectful toward the distinguished names whose conflicting experience was cited; but we have now had brought together forms and placed on record the clinical observation of some of the lights of the medical world, in a manner which is instructive in the highest degree. The conflict of experience here set forth is no new thing under the sun. For instance, in former days it was the fashion to refer everything to "Louis's laws," just as it was the custom for the "Faculty" of a preceding generation to carry gold-headed canes. As the stethoscope song has it:—

"Said he—the man must die you see,  
By the fifty-seventh of Louis's laws."

Now one of those dicta was that tubercle chiefly affected the left infra-clavicular space. Observa-

\* Op. cit., p. 163.

† Op. cit., p. 31.

‡ Op. cit., 6th ed., p. 636.

tion in this country did not confirm that statement. In a word, statistics which appear at first sight abundant to superfluity, are sometimes found, on comparison with other collections of facts, to be not sufficiently comprehensive.

**OZONE TEST FOR BLOOD STAINS.**—The *Lancet* of March 30th speaks of the ozone test for blood-stains (the action of the coloring matter of the blood upon the resin of gnaiaum in the presence of autozone) as a new color test for blood. That Journal represents this test to have been discovered in Australia, and to have been recently approved by an English chemist. We are informed by excellent authority that the *Lancet* is in error here; that the test was discovered by Van Deen in Germany; and that it was used in the investigations conducted in this city with reference to the murder of the Joyce children, as long ago as the summer of 1865. It formed also, as we are apprized, a part of the evidence offered by the Government in the recent trial of Andrews at Kingston.

**DR. BROWN-SEQUARD.**—In relation to the communication made by Dr. Brown-Séquard at the preceding session of the Imperial Academy, that gentleman, at the meeting of the 23d of March, was interrogated by several of his colleagues, as to what part of the restiform body he cut or irritated in order to produce the dry gangrene and sanguineous effusions he had described.\* He replied that his point of election was the end of the *calamus scriptorius*. Section of a very few of the fibres was sufficient. Nothing was easier, he said, than to expose the restiform bodies, and to irritate or cut them. He further remarked that certain peculiar conditions were a sure index that the experimental lesion had really affected the part of the restiform body indicated. These were paralysis of the tongue and anaesthesia of the lips, from which resulted dropping of food introduced into the mouth; the hypoglossal and trifacial nerves arising in the neighborhood of the *calamus scriptorius*. The Professor again pointed out the analogy which exists in a very great number of instances, between the symptoms experimentally induced in animals, and those revealed by clinical observation in man.

**PROSTITUTION IN CHINA.**—The *Union Médicale* has an article translated from the German, describing prostitution in China. The evil exists to an enormous extent in the cities of the Celestial Empire. The dwellings where the traffic is carried on are hardly "houses of ill fame." So far from their being kept shady they are made conspicuous by blue window shades, whence they are called

"blue houses." At night the curtains are raised in the front windows, the reception apartments rendered brilliant with lights, and the building resonant with what is called music. Their patrons enter day and night without concealment. The prostitutes are entirely in the power of the proprietors of these establishments, and are often sold, when children of a dozen or more years, to be trained up to their miserable occupation. When no longer serviceable these creatures are often turned off to wear out their existence in the streets, picking up a meagre pittance by mending garments and sundry menial offices.

As a concomitant of the social evil in China the most unbridled obscenity of language prevails in books and in the family circle, the presence of children placing no check upon it.

As a consequence of this state of things, venereal disease is rife and in a virulent form; but is said to be worst among women frequented by Europeans. The Chinese accordingly avoid those women whose traffic is among foreigners, to whom they endeavor to leave the inferior article.

**PARALYSIS FOLLOWING THE USE OF CHLOROFORM.**—At the session of the k. k. Gesellsch. d. Aerzte, Vienna, Feb. 19, there was reported a case in which the patient became completely aphonic and aphasic after awaking from the slight degree of narcosis required for the removal of a tooth. There was also at that time considerable spasm of the glottis, most marked during inspiration. The loss of voice and speech continued during five weeks; but for three weeks past the patient has been able to speak in a low voice. The treatment up to the date of report was mainly by electricity; the constant stream is found most useful. Dr. Hofnobl, who reported the case, believes that the symptoms were due to cerebral apoplexy, caused by the chloroform narcosis. The patient was a perfectly healthy woman, a cook, aged 22, and never had hysteria.—*Wochenbl. d. k. k. Ges. d. A. in W., Mar. 3.*

D. F. L.

**AMERICAN MEDICAL ASSOCIATION—CORRESPONDENCE OF DRS. BALDWIN AND NOTT.**—We have received printed copies of a lengthy letter addressed by Dr. W. O. Baldwin, of Montgomery, Alabama, to Dr. J. C. Nott, formerly of Mobile, now of New York; and of one from Dr. Nott, in reply to Dr. Baldwin. The purport of these letters is to deprecate any coolness on the part of Southern medical men toward the American Medical Association, during its approaching session at New Orleans. Dr. Baldwin says:—

"You may have seen some little dissatisfaction expressed in newspapers over a *nom de plume* indicating the author to be a physician, but I assure you such sentiments are confined to but very few, and have failed to reach the great heart of the profession. I was grieved, however, to see even this manifestation of opposition to the great repre-

\* Vide Journal of April 15th.

sentative interests of the medical profession of this country. It has no root and can bear no fruit in science or general beneficence.

"This dissatisfaction grew out of the action of the Association at its meeting in 1864, in relation to a preamble and resolutions introduced by Dr. A. K. Gardiner, of New York. These were, in fact, a remonstrance against the war ethics of the Government, and, in substance, provided that the President of the United States, heads of departments and members of the United States Senate be requested by the Association to 'take such action as shall cause all medicines and medical and surgical instruments and appliances to be excluded from the list *called contraband of war.*' The action taken on these resolutions by the Association was to lay them on the table indefinitely, and which, in parliamentary parlance, I believe, means that it was 'not desirable to consider them at that time.'

"I assume, then, the broad ground that it was a question with which the Association had nothing whatever to do, and one which was not properly before it for discussion; and, it seems to me, that it was expecting too much of our Northern brothers to suppose that they, at a time when all the sinews of war were called most vigorously into execution, would place themselves in antagonism to their government upon a question which was entirely outside of their *professional position and accredited duties.* In doing so, they certainly would have been transcending their legitimate sphere and meddling with the prerogatives of those to whom the regulation of the ethics of war had been assigned and who claimed exclusive jurisdiction over the question.

"Pardon me, dear doctor, for trespassing so long upon your valuable time. I know that you will excuse it in the interest you feel in the general prosperity of the medical profession of the whole country, and especially in the desire which you feel to see your Southern friends come fully up to their duty, in meeting the honorable advances which have been made by our Northern brothers, looking to a complete and perfect fraternization. I think the American Medical Association is to be the power through which a greater good is to be accomplished for the profession in this country, than has yet been achieved. On this point you may perhaps hear from me at some future time. I will only say now, that its organization had its inception chiefly in an idea which has not yet been realized—that of elevating the standard of medical education in this country. But I believe its labors in this direction will yet be felt and acknowledged. To this end, it *must be national* and represent the interests of the profession in every part of the country. Those who comprehend the grandeur of its germ, appreciate full well the ultimate possibility of its nature, and will see to it that the inspiration which gave it birth shall be worked to a final and successful end. The advancement of science, the affections of an enlightened brotherhood, the interests of society and the good of humanity are, all united with it, and from every section I have the most gratifying assurances of a determination to bury all other sentiments in the one great purpose of promoting harmony and concert of action, with the kindest

feelings of fraternal regard. Assure our friends of the North of this, and tell them we desire to meet them in large numbers in New Orleans in May.

"With assurances of the highest regard, believe me, dear doctor, most sincerely and truly your friend,  
W. O. BALDWIN, M.D."

In Dr. Nott's reply occurs the following passage:

"Now, sir, I beg leave to say a word of my personal experience, since the war, at the North. Soon after the war closed, I was summoned to Washington as a witness in the Wirz trial, and seized the occasion to run over to Philadelphia to see what I could discover that was new, in the way of books, instruments, practice, &c.; we having been shut out from the world for four years. Not only did the medical gentlemen of Philadelphia receive me politely, but they seemed to feel as if they thought I might feel some delicacy in presenting my rebel face in their midst, and were more desirous than I had ever seen them of treating me with hospitality.

"About a year ago I came to pitch my tent in the city of New York, determined to ask no favors of the members of the profession, and not one of them can say that I ever solicited an introduction to him; and yet it would sound like egotism were I to tell of half the respect, the hospitality and kindness I have received, both in and out of the profession, in the city of New York. It is but justice to the faculty in New York to say that in tone, talent and attainment, it will compare favorably with that of the large capitals of Europe."

*Comments of the St. Louis Medical Reporter.*—With reference to the letters of Drs. Baldwin and Nott, the *St. Louis Medical Reporter* says:—

"On reading these letters the thought has arisen in our mind that if the party now in power were only actuated by the spirit of genuine patriotism and true Christian charity which glows in the utterances of Drs. Baldwin and Nott, instead of by feelings of hatred, malevolence and revenge, how soon the wounds inflicted on the body politic by the late civil war would be healed, and the Union established on the sure basis of enduring friendship and mutual affection. We hope that the Association will set an example in this respect which may even yet reach the hard and obdurate heart of politicians. Let the motto be: 'The union and harmony of the profession for the sake of the Union, for the good of humanity.'"

On page 108 of the same number of the *Reporter* is the following passage:—

"*Negro and Female Medical Students.*—We see it stated in the *New York Medical Gazette* that the faculty of the Massachusetts Medical College having left it to the students to decide whether negro men and white women should be matriculated, they decided to admit the former and reject the latter. Perhaps if the women had blacked their faces they might have fared better."

Notwithstanding that the old volcano still gives an occasional rumble, we have no doubt that the association will be kindly received in New Orleans; and we think the selection of that city for the

meeting this year well-timed. Social attrition will do much toward smoothing some of the rough corners. But political allusions had better be altogether eschewed.

WHAT IS "PROTOPLASM?"—By Dr. LIONEL S. BEALE, F.R.S. It will be remarked that in the lecture referred to in the *Medical Times and Gazette* of March 6, Professor Huxley includes under the term "protoplasm" matter in very different states, and maintains that this "protoplasm" is the physical basis of *life*, or the basis of physical *life*.

1. Living moving matter, as that in the cells of *vallisneria*, the hairs of the nettle, the matter of an amoeba, a white blood-corpuscle, and a pus corpuscle, is protoplasm.

2. Contracting matter—as of muscle, which is capable of shortening or lengthening (contraction, relaxation), but not of moving in any direction like the amoeba and the white blood-corpuscle, &c.—is protoplasm.

3. Albuminous matter, as white of egg, which is not capable of any movement at all, is protoplasm.

4. Dead and roasted matter is protoplasm. "Mutton contained protoplasm of the same nature as was found in every living thing." "As he spoke he was wasting his stock of protoplasm, but he had the power of making it up again by drawing upon the protoplasm of some other animal—say of a sheep. (Laughter)."

If a white blood-corpuscle, a piece of muscle, white of egg, and roast mutton are all to be called *protoplasm*, surely the name may be also employed in speaking of hair, horn, nail, bone, wood, coral, and shell, and a number of other things; indeed, we might call men, animals, and plants, dead or alive, *protoplasms*. Huxley makes no difference between dead and living and roasted matter, and he confuses together the living thing, the stuff upon which it feeds, and the things formed by it, or which result from its death.

If the *forms* assumed by water are due to the properties of its constituent gases, it must be admitted that these forms are not quite so numerous as those taken up by protoplasm, and that the greater number of elements in the latter substance will not account for the difference. It is quite true we cannot ascertain by physical investigation any difference between the protoplasm of the embryo of a worm, dog, and man, and I have myself dwelt upon this, but it by no means follows that the *properties* of protoplasm to form worm, sheep, bird, man, as the case may be, are due to the arrangement and nature of its component molecules, of which Dr. Huxley knows nothing definite. Of course any one might assert that the differences exhibited by the fully formed "protoplasms" of these living things are to be explained by supposing a gradual alteration in property and arrangement of the elements as growth advances, but it would be absurd to attribute these alterations to physical changes, because there is no instance of non-living matter undergoing such alterations in property. Mr. Huxley teaches *unity of power*, and it was therefore unnecessary for him, at least in the city of Hume, to defend himself against the

charge of teaching materialism, which could not with reason be made. Dr. Huxley manifests a tendency to modify his old views and to bring them more in accordance with the results of researches made during the last ten years. Already the vacuoles of his periplastic substance have become tenanted by the simple or nucleated protoplasms, and he may yet discover that the latter existed before the former, and that, after all, the endoplasm is really of more importance than he was disposed to think. From this the transition to the opinion that the periplastic matter is formed by the protoplasm, which possesses power of a remarkable kind, will be simple and easy enough.—*Medical Times and Gazette*.

THIRD DENTITION. By J. K. DODGE, West Eau Claire, Wis.—Two cases of third dentition have lately come to my notice, which may be of interest to the profession. One was that of a lady of 48 years, who had her teeth taken out eight months since, and who now has a right superior cuspid erupting, and I think there are signs of others. The second case was that of a daughter of the first, aged 18, who had her teeth taken out some six months since; a right superior cuspid appeared, which I extracted. These are interesting cases, happening the same to both mother and daughter.—*Dental Cosmos*.

THIRD DENTITION.—Dr. H. H. Nelles, dentist, reports in the *Canada Journal of Dental Science*, the case of a lady forty-five years of age, from whom he extracted a number of roots preparatory to the insertion of a full set of artificial dentures. Upon a second visit, to his surprise, he found that nature had sent forth a well developed superior *cuspidatus*. In anticipation that nature would complete the work thus auspiciously begun, Dr. Nelles deferred inserting an artificial set of teeth. This case brings to mind a fact related of himself, by a gentleman of our acquaintance. When he was 19 years of age, his four upper incisors were broken off by a blow with an iron bar. The roots were extracted but no artificial teeth inserted. Some months after, while at the table eating, he was greatly startled to discover the points of teeth projecting through the gum. The incisors soon fully supplied the place of the lost second teeth, and are as perfect in every particular as one could wish.—HENRY GIBBONS, JR., M.D. *Pacific Med. and Surg. Jour.*

ANOTHER SPECIMEN OF WESTERN BABIES.—Detroit has entered the lists in competition with her sister cities and villages of the West, and promises to be not far behind any of them in giving to the world infants of Brobdignagian proportions.

On the 19th of February, Mrs. J. W., 43 Sibley Street, was delivered of a well-formed male infant 24½ inches long, weighing 16 pounds *in puris naturalibus*. The forceps were brought into requisition in effecting the delivery, the mother being rather under-sized, although a well proportioned woman. Her weight, in fact, *after parturition*, is stated as only 92 lbs.—*Detroit Review of Medicine and Pharmacy*.

## Medical Miscellany.

**AMERICAN MEDICAL ASSOCIATION.**—Delegates to the meeting of the American Medical Association at New Orleans who pay full fare thither can be returned free on the certificate of the Permanent Secretary, by the New Haven, Hartford and Springfield Rail Road and by the Providence, Hartford and Fishkill Rail Road, provided that on the latter road the delegates present their certificates to the Superintendent at the depot in Hartford. Certificates good during the month of May.

B. H. CATLIN, M.D.,  
Committee for Connecticut.

**DEPARTURE OF DR. E. H. CLARKE FOR EUROPE.**—Dr. Edward H. Clarke has left for a sojourn of several months in Paris. His absence will be regretted by a large circle of patients and friends. A few days before he sailed, we persuaded him to lend us the manuscript of his address to the Graduating Class at the recent Commencement of the Medical College; and we propose occasionally to make from it certain extracts.

**DEATH OF DR. ALEXANDER H. STEVENS.**—At a special meeting of the New York Academy of Medicine, held April 2d, 1869, for the purpose of paying a tribute to the memory of the late Alexander H. Stevens, M.D., a series of resolutions were unanimously passed, expressive of the high estimation in which he was held by the members of the Academy, and of their deep sorrow at his departure.

**CASES OF ALLEGED TRANCE.**—We presume that most of the cases of alleged trance in young girls which are prolonged for weeks or months, and said to be attended with abstinence from food, may be diagnosed as hysteria with surreptitious nourishment. One of these cases is now on the *tapis* in the English Medical Journals.

A NOVELTY in journalism is the announcement of a bi-monthly *Journal of Parasitology*, to be published under the direction of Prof. Hallier, of Jena. Parasites of man, of animals, and of plants are to be described; and authors of all countries will be allowed to write for the periodical in their vernacular. A literary Babel!

At a recent meeting of the New York Pathological Society, Dr. Noyes exhibited a cutaneous horn, five eighths of an inch in length, removed from the edge of the upper tarsus of the left eyelid of a young man aged eighteen. On the top of this growth was a single eyelash. Although no microscopical examination of it had been made, he supposed that it consisted merely of an aggregation of epithelial scales. He considered it a very rare form of disease, but as often happened, a parallel one had just been reported in a late number of the Boston Medical and Surgical Journal.—*N. Y. Medical Record*.

**CEREBRO-SPINAL FEVER.**—We regret to hear that this fatal disease has made its appearance in Dundalk, Ireland, and has proved fatal in many instances. Dundalk has always been remarkable for its salubrity.—*British Medical Journal*.

**ANTIDOTE TO CARBOLIC ACID.**—Messrs. Calvert wish to make known the fact that sweet-oil or castor-oil in large quantity is the best antidote to carbolic acid, when it has been swallowed in poisonous doses.—*Medical Times and Gazette*.

**DR. WM. PEPPER**, in a paper on Phosphorus Poisoning, says:—"It appears to us, then, that phosphorus acts as so many other poisons do, by entering the blood in the form of a highly irritant substance, and in the course of its excretion from the various glands, induces a degree of irritation bordering on inflammation, attended with a proliferation of cells, which, as frequently happens, are not fully organized, and readily undergo fatty degeneration."—*Am. Jour. of Med. Sciences*.

**PRURITUS VULVE.**—It is stated (*Gazette des Hôpitaux*, Jan. 7th, 1869) that this annoying affection is often entirely cured and always diminished by a lotion consisting of five parts of corrosive sublimate dissolved in fifty parts of alcohol. A teaspoonful of this solution is to be diluted with a pint of tepid water, and applied as a wash to the parts several times in the day.—*Ibid*.

### MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATUM.**—On page 194, for "sanguinary" read *sanguineous*.

**TO CORRESPONDENTS.**—The following communication has been received:—Typhoid Fever, with Perforation and Peritonitis.

**PAMPHLETS RECEIVED.**—Chloroform, and a new Method of administering it. By A. M. Rosburgh, M.D., Surgeon to the Toronto Charitable Eye Infirmary.—*The Intermarriage of Relations*. By Nathan Allen, M.D., of Lowell.—*On the Physical Basis of Life*. By T. H. Huxley, LL.D., F.R.S. Reprinted at the College Courant office, New Haven, Conn.

**DIED.**—At Orange, April 13th, Dr. Robert Andrews, aged 67.

**DEATHS IN BOSTON** for the week ending Saturday noon, April 17th, 135. Males, 61—Females, 74.—Accident, 3—apoplexy, 2—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 5—inflammation of the brain, 1—bronchitis, 5—cancer, 1—consumption, 28—convulsions, 4—croup, 4—debility, 1—diarrhea, 1—diphtheria, 2—dropsy, 1—dropsy of the brain, 2—drowned, 1—dysentery, 1—erysipelas, 1—scarlet fever, 12—typhoid fever, 2—disease of the heart, 7—homicide, 1—infantile disease, 3—disease of the liver, 1—congestion of the lungs, 4—inflammation of the lungs, 14—marasmus, 1—old age, 2—paralysis, 1—peritonitis, 1—premature birth, 3—puerperal disease, 1—scalded, 1—disease of the spine, 1—teething, 1—inflammation of the throat, 1—tumor, 1—ulcers, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 56—between 5 and 20 years, 14—between 20 and 40 years, 30—between 40 and 60 years, 21—above 60 years, 14. Born in the United States, 92—Ireland, 30—other places, 13.



THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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## Original Communications.

### NEURASTHENIA, OR NERVOUS EXHAUSTION.

By GEORGE BEARD, M.D., Lecturer on Nervous Diseases in the University of New York.

I AM to speak to-night of a condition of the system that is, perhaps, more frequently than any other, in our time at least, the cause and effect of disease.

I refer to *neurasthenia*, or exhaustion of the nervous system.

The morbid condition or state expressed by this term has long been recognized, and, to a certain degree, understood, but the special name *neurasthenia* is now, I believe, for the first time presented to the profession.

It is quite recently, indeed, that the phrase nervous exhaustion has been popularized, at least as a term expressive of any special condition of the system. Prof. Austin Flint, in his Treatise on the "*Principles and Practice of Medicine*," devotes a brief space to this subject, and acknowledges his indebtedness to Dr. Fordyce Barker for first suggesting the phrase "*neurasthenia*" as expressive of a special morbid condition. Besides this brief notice of Prof. Flint, this important condition of the nervous system has not, so far as I know, been dignified by a separate heading, or distinct chapter in any of our most approved treatises on the Practice of Medicine, although the general phrase "*nervous exhaustion*" quite frequently occurs in conversation and medical literature, and is now the common property of the profession.

My own attention was called to this morbid condition quite early in my professional life, and in the cultivation of the department of Neurology and Electro-therapeutics, I have enjoyed excellent opportunities both for the study and the treatment of all the various grades and phases of this frequent malady. As a matter of necessity in describing, recording and studying cases of nervous disease, I have for some time been

in the habit of employing the term *neurasthenia* to express the morbid state that is commonly indicated by the indefinite phrase nervous exhaustion.

This nomenclature would seem to be justified by philological analogy, by scientific convenience, and by actual necessity.

The derivation of the term *neurasthenia* is sufficiently obvious. It comes from the Greek *νευρον*, "a nerve," *a*, privative, and *σθενος*, "strength;" and, therefore, being literally interpreted signifies want of strength in the nerve.

The character of this malady, if I be allowed to call it such, may best be understood by comparing and contrasting it with *anæmia*, a condition which has been more thoroughly discussed, and is therefore more vividly appreciated by the profession at large.

*Anæmia* (derived from *a*, privative, *αἷμα*, euphonic, and *αἷμα*, "blood") is to the vascular system what *neurasthenia* is to the nervous. The one means want of blood; the other, want of nervous force.

Both *anæmia* and *neurasthenia* may be the effects of acute or chronic diseases, and both may be either acute or chronic in their course. Thus *neurasthenia* may be the effect of wasting fevers, exhausting wounds, parturition, protracted confinement, dyspepsia, plithisis, morbus Brightii and so forth. *Anæmia*, as is well known, may result from the same diseases.

Both *anæmia* and *neurasthenia* may also be the cause of chronic and acute diseases. Thus *neurasthenia*, or nervous exhaustion, may give rise to dyspepsia, headaches, paralysis, insomnia, anæsthesia, neuralgia, rheumatic gont, spermatorrhœa in the male and menstrual irregularities in the female. *Anæmia* also is the source of many of these diseases, though perhaps it is more frequently the effect.

*Anæmia* and *neurasthenia* may cause each other; *anæmia* is often the result of *neurasthenia*, and *vice versa*.

Both *anæmia* and *neurasthenia* are most frequently met with in civilized, intellectual communities. They are a part of the compensation for our progress and refinement.

*Anæmia* and *neurasthenia* may run into  
[WHOLE No. 2148.]

\* Read before the New York Medical Journal Association.

each other, and become so closely inter-blended that it is oftentimes impossible to determine which was the cause and which was the effect, or which is the ruling condition.

Both of these conditions, whether existing separately or in combination, are best treated by some form of constitutional tonics. In anæmia we give those tonics that directly and specially affect the *blood*; in neurasthenia we give those remedies that directly and specially affect the *nervous system*.

In regard to the pathology of neurasthenia we are compelled, in the absence of definite knowledge, to reason from logical probability.

My own view is that the central nervous system becomes dephosphorized, or, perhaps, loses somewhat of its solid constituents; probably also undergoes slight, undetectable, morbid changes in its chemical structure, and, as a consequence, becomes more or less impoverished in the quantity and quality of its nervous force.

That molecular disturbance, sufficient to give rise to the symptoms of nervous exhaustion, may take place in the central nervous system, is rendered logically probable.

The fact that such changes can be produced artificially, as proved by the researches of du Bois-Reymond.\*

We are, I think, driven to accept this view from what we already know of the brain and spinal cord—of their relation to the intelligence and activity, of their intimate chemical structure, of their diverse appearances in health and disease. We know that the intelligence of men and animals is proportioned to the quantity and quality of the cerebral contents, that the proportions of water, of phosphorus, of fat, and of the other solid constituents of the central nervous system vary more or less, with the age, and with the intellectual and moral capacity,† and that all forms of insanity‡ are dependent on *some* central morbid condition.

From these established facts we logically conclude that even the slightest and most transient disturbances of the nervous system are the results of correspondingly slight morbid changes of the brain or spinal cord, or of the peripheral nerves.

I admit that this view is speculative, but I feel assured that it will in time be substantially confirmed by microscopical and

\* See Reynolds's System of Medicine, vol. ii., p. 48.  
 † See analyses of L'Héritier, quoted in Prof. Draper's Physiology, p. 273.

‡ Maudsley's Physiology and Pathology of the Mind, p. 59.

chemical examinations of those patients who die in a neurasthenic condition.

Neurasthenia may result from any causes that exhaust the nervous system. Hereditary descent terribly predisposes to neurasthenia, just as it predisposes to all forms of nervous derangement. The law of *reversion* is frequently illustrated here, and sick headache, epilepsy or insanity or dyspepsia in the grandfather may skip over a generation and show itself as neurasthenia in the grandchildren. Among the special exciting causes of neurasthenia may be mentioned the pressure of bereavement, business and family cares, parturition and abortion, sexual excesses, the abuse of stimulants and narcotics, and civilized starvation, such as is sometimes observed even among the wealthy order of society, and sudden retirement from business.

The *diagnosis* of the neurasthenic condition is sometimes entirely clear, and again is quite difficult. The diagnosis is obtained partly by the positive symptoms, and partly by exclusion. If a patient complains of general malaise, debility of all the functions, poor appetite, abiding weakness in the back and spine, fugitive neuralgic pains, hysteria, insomnia, hypochondriasis, disinclination for consecutive mental labor, severe and weakening attacks of sick headache, and other analogous symptoms, and at the same time gives *no evidence of anæmia or of any organic disease*, we have reason to suspect that the central nervous system is mainly at fault, and that we are dealing with a typical case of neurasthenia. But neurasthenia may be associated with anæmia and with almost every conceivable form of organic disease. In such cases it is sometimes very difficult to ascertain whether it is the cause or the effect. The history of the symptoms will help us to decide this question; which is, however, of little import, for in either case the general treatment will be substantially the same.

The *prognosis* in neurasthenia is as various as are the symptoms of the disease. Acute neurasthenia resulting from acute disease usually recovers rapidly; but sometimes becomes chronic, especially when the previous disease has been long and exhausting.

Chronic neurasthenia—of which form I am chiefly speaking—may result in paraplegia, in general paralysis, in neuralgia, in uterine disturbances, in dyspepsia, in chorea, in hypochondriasis, in hysteria, and in actual insanity; or under proper treatment it may go on to perfect recovery.

Chronic neurasthenia sometimes proves

directly fatal, without causing any organic disease; but such a termination is not usual. It is, *par excellence*, a chronic condition, and patients afflicted with it may last for half a century. We are all of us more or less familiar with such cases. I have a friend who has been afflicted with neurasthenia for more than fifty years, and yet during all this time he has been severely engaged in the complicated duties of a lawyer, a judge, and a man of business. There is not an organ of his body that has not suffered from this prolonged neurasthenia; from the time he was fifteen years old until now there has been no day in which he has been free from pain. Even anæmia has supervened, but though the lamp of life has often flickered, yet at the advanced age of seventy it still "holds out to burn."

It is an established fact that opium eaters who are poisoned and weakened by the drug, are comparatively exempt from many other diseases. Opium eaters, I believe, all agree that it is very hard for them to take cold while under the influence of the evil habit. Just so, neurasthenia seems to protect the system from many acute diseases that so often prove fatal to the hardy and muscular.

Ralph W. Emerson, in one of his essays, quotes an authority who very happily compares a republic to a raft, which never sinks, but always keeps our feet under water, while a monarchy is a stately ship that may at any time strike a rock and go down in an instant.

This comparison just as aptly illustrates the difference between the nervous civilized man and the hardy barbarian. From statistics that I compiled and arranged a few years since, it appears that the expectation of human life or average longevity has at no time been greater than in the present century; that in no other country is it so favorable as in our own, and that no class, on the whole, live longer than our leading brain-workers, who are, of course, peculiarly liable to be affected with chronic neurasthenia.

But though neurasthenic patients live, they "live at a poor, dying rate," and demand and need relief, and many of them are very fortunately quite amenable to treatment.

The one principle on which neurasthenia is to be treated is by the concentration of all possible tonic influence on the nervous system—air, sunlight, water, food, rest, diversion, muscular exercise, and the internal administration of those remedies, such as

strychnine, phosphorus, arsenic, &c., which directly affect the central nervous system.

The nervous tonic which I largely employ in neurasthenia is *general electrization*. In this method of treatment the feet of the patient are placed on a sheet of copper to which the negation pole is attached, while the positive, either a large sponge or the hand of the operator, is applied over the head (the hair being previously moistened), on the back of the neck, down the entire length of the spine, down the arms, over the stomach, liver, bowels, down the lower extremities—in short, over the entire surface of the body, from the head to the feet; but with special reference to the head and spine.

The evidences that the electric currents when thus applied over the head and spine directly affect the brain and spinal cord, and, to some extent, the nerves that issue from them, are the following:

1. The investigations of Dr. Erb, of Germany.\*

By experiments on the cadaver he proved that the galvanic and Faradaic currents directly affected the brain and spinal cord—the galvanic more than the Faradaic.

2. My own repeated observations in cases of myelitis. In some cases of inflammation and even of congestion of the cord, an exceedingly weak current (either galvanic or Faradaic) will sometimes cause the most acutely painful sensations, both in the cord itself, and in the peripheral nerves that go to the viscera and the extremities. On the other hand there are cases of nervous disorder, where the nerve-centre is in a condition of partial anæsthesia, and consequently bears much stronger applications of electricity than when in a normal condition.

3. The remarkable tonic effects that are produced by applications of electricity over the head, and down the spine, even when the rest of the body is not touched.

These tonic effects of general electrization may be explained in two ways.

*First*, the electric current may directly improve the quantity and quality of the vital force, in accordance with the theory of the correlation and conservation of forces.

*Secondly*, the violent and repeated muscular contractions that are produced during the operations of general electrization greatly increase the processes of waste and repair. I once supposed that this passive exercise of the various tissues of the body, internal as well as external, might be the only ex-

\* Deutsches Archiv. 3 Band. IX.

planation of the results obtained by general electrization.

That this view was a mistaken one is proved by the fact that these tonic effects are very markedly observed from applications of a mild galvanic current over the surface of the body, even when no muscular contractions are produced.

The power of general electrization to relieve neurasthenia and to cause increase of weight, was illustrated in a very pleasing and satisfactory manner in the case of a young physician whom we have treated during the present autumn. He was 28 years of age, and for a long time he had been subject to severe and repeated attacks of nervous and sick headache. To use his own expression, he had been "living on a lower plane than was normal." Over work and long confinement had reduced him to a condition of serious exhaustion, and when he called upon us in September he could not walk two miles without fatigue. Although 5 feet 9½ inches in height, he weighed but 112 pounds, and for many months there had been no sign of any increase. He had closely studied his own case, had been thoroughly examined, and had tried nearly every form of internal medication.

I began treatment by a mild application of electrization with the Faradaic current. He felt temporarily enlivened and exhilarated, but when he returned two days subsequently, he stated that he felt no special benefit, although he had gained *one half a pound in weight*. This change, slight as it was, encouraged him, for it had been months and years even, since he had been able to detect any increase in weight. I may say here that he watched and studied his symptoms, and carefully ascertained his weight, from day to day, not as a hypochondriac at all, but as a scientific man, inspired not by any special faith in the remedy, but by an earnest desire to test for himself the tonic effects of general electrization. He continued to increase in weight with remarkable regularity and uniformity, and at the end of three weeks he found that he had increased nine pounds. When I last saw him his weight was 124 pounds. The improvement in his general condition has gone on hand in hand with the increase in weight. His appetite is keener, and his digestion much easier. His attacks of headache still annoy him, but his capacity for endurance has been greatly enlarged. Whatever relapses may occur in coming months or years, he feels now that he has at least found a means of relief and permanent benefit.

In this case the applications were made very thoroughly, all over the person from the top of the head to the feet, and with a powerful current. Both the Faradaic and galvanic currents were used, chiefly the Faradaic. It is worthy of remark, also, that this patient always experienced a feeling of temporary enlivenment and exhilaration after each application, and sometimes the headache from which he suffered was driven away in the midst of the treatment.

I may say, also, that when he first came I prescribed oxide of zinc, by *exclusion*, because he had used nearly every other internal tonic. He took, however, two or three doses of one grain each, for the first day, dropping it entirely as soon as he found that he had increased half a pound in weight.

This case I regarded as preëminently a typical one—a typical illustration of neurasthenia and of the benefit that may be received from general electrization.

But sometimes the treatment is protracted for weeks before any decided and permanent benefit is received.

This was well illustrated in the case of a stout, plethoric gentleman, whom we treated for neurasthenia in the summer of 1868. He was treated for several weeks before we could detect or could appreciate any very decided benefit. Finally we alternated the galvanic with the Faradaic current, and succeeded in affording him positive relief from many of the symptoms of nervous exhaustion from which he had suffered for years.

There are cases of neurasthenia that do not yield to general electrization, even after it has been perseveringly employed. These exceptional results may be variously accounted for. It may be that our diagnosis is wrong, and that organic disease of some kind is stealthily eating out the patient's life. It may be that their nervous systems are exhausted beyond restoration. It may that severer applications and larger perseverance might have resulted in positive benefit.

Dr. Rockwell and myself have records of 30 cases in which nervous exhaustion seemed to be the leading condition. Some of these cases were complicated with hemiplegia, paraplegia, hysteria, hypochondriasis, and so forth; but the majority complained chiefly of, and only sought treatment for, the *general* symptoms of nervous exhaustion, as I have described them. The results of treatment are as follows:—

Cured . . . . .	4
Greatly benefited . . . . .	16
Slightly benefited . . . . .	5
Not perceptibly benefited . . . . .	5
Total . . . . .	30

A few of those who were slightly or greatly benefited have measurably relapsed; but up to the present time the majority, so far as we can learn, have retained or increased the improvement they received. Two or three of the cases that relapsed are now under treatment.

In the limited time allowed me on this occasion it has been manifestly impossible to do anything more than to present the outlines of so important a subject as neurasthenia. I have, therefore, not aimed to be exhaustive, but only to be *suggestive*.

The principles on which I mainly insist and to which I call special attention, are briefly these:—

1. The term neurasthenia, as expressive of a very important and increasingly frequent condition of the system, is eminently justified by philological analogy, by convenience and by necessity.

2. The one principle on which this morbid condition should be treated is by the employment, either separately or together, of constitutional tonics, that specially affect the nervous system.

3. Among the various internal and external tonic remedies for neurasthenia, general electrization is oftentimes preëminent. The superiority of general electrization in cases where internal medication has failed, is apparent in the ease and rapidity with which it increases the appetite, promotes sleep, and develops the size and weight of the muscles—thus preparing the way for the *digestion of food*, which is itself one of the very best of tonics; for *rest*, which is really food for the nerves; for muscular exercise, which, in its turn, prepares the way for air and sunlight.

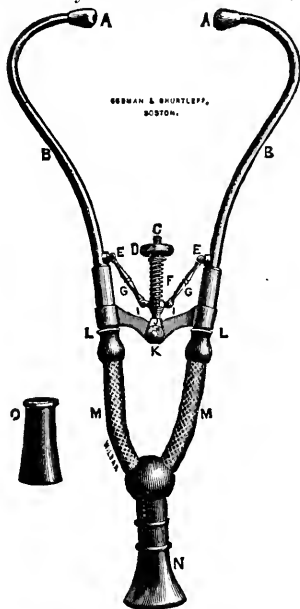
In this capacity of general electrization for marshalling to its aid other tonic influences, lies, I think, the secret of its power, perhaps the best interpretation of its success.

#### AN ADDITION TO CAMMAN'S DOUBLE OR BINAURAL STETHOSCOPE, INTENDED TO REGULATE THE AMOUNT OF PRESSURE ON THE EARS.

Messrs. Editors:—At the last meeting of the Suffolk District Society I presented an addition to the double stethoscope. Ac-

companying this communication is a cut representing this instrument with the addition.

As the double stethoscope is very little used, even in this country, where it was invented, except by graduates of Harvard and Bellevue, and almost never, I believe, abroad, convinced of its great superiority over the single instrument I will briefly mention the reasons for this superiority, and then speak of the addition which has been recently made to the instrument.



Its advantages are:—

1. It greatly intensifies sound. Most of the single instruments simply conduct, a few slightly intensify them.

2. It is much more easily applied to the chest, and maintained in place—a certain amount of knowledge of the art of balancing seeming almost necessary to manipulate the single instrument successfully.

3. We can keep our eyes upon the pectoral extremity, and thus be assured of its perfect adaptation, and prevent the friction of clothing, &c.

4. It excludes from the ear sounds not conducted by the instrument. The statement once made by Prof. Flint, that “in the conduction of thoracic sounds by Camman’s

binaural stethoscope, their quality and pitch were altered," has been since corrected by him, and he says that after further use of the instrument he finds "the objection on this score without foundation;" and he adds "I am sure that this instrument will supplant all wooden stethoscopes, as soon as it is fully appreciated. . . . Some practice is requisite to realize its value; hence many reject it after an insufficient trial, when, had they continued to use it, they would have been after a while unwilling to give it up."

The instrument consists of a bell-shaped extremity N, made of ebony, one inch and a half in diameter, to which are attached two elastic tubes M M, three inches long, and one half an inch in diameter, made of wire and covered with silk, which articulate at L L with two German silver tubes B B crossed, about ten inches in length and one quarter of an inch in diameter, which terminate in ivory or hard rubber tips A A, to fit into the ears.

The adaptation of these tips was formerly effected by a simple elastic band, passing about the tubes B B, these tubes being connected by arms meeting in a joint at K.

The only way in which the pressure on the ears could be varied, was by lengthening or shortening the elastic band, or by slipping it up and down on the tubes. The great inconvenience of this was particularly evident in my classes in auscultation, where the stethoscope was passed from one to another, and where not only were heads of all sizes, but where naturally much difference of opinion existed in regard to the amount of pressure desirable.

About a year ago I stated the difficulty to Mr. Moses G. Farmer, well known to our profession for his connection with the physiological experiments of Dr. Upham, in the case of M. Groux, and he immediately suggested the addition represented in the cut. C J represent a standard (so fixed as not to interfere with motion in the joint at K), the upper part of which is a screw. II represents a slide movable on this standard, F a spiral spring, and D a nut. G G represent two arms attached by simple box joints to the slide at I I, and to the German silver tubes at E E.

It will be readily seen how the pressure of the tips A A upon the ears can be nicely regulated, by regulating the tension of the spiral spring F by turning the nut D.

O represents a smaller pectoral extremity, which can be used sometimes with advantage in localizing heart murmurs, or when the application of the larger one is difficult

on account of emaciation of the patient or other cause, but ordinarily the larger one should always be used. The instrument, with and without the addition, is made in a superior manner by Messrs. Codman and Shurtleff, 13 and 15 Tremont street.

In closing I would strongly urge all who practise auscultation to use the double instrument, and would simply suggest that they be not dissuaded from its use by the *roaring* which will annoy them at first but which they will soon disregard; that they never apply it over clothing except when absolutely necessary, and that they make inference from the results with great caution.

F. I. KNIGHT.

### CEREBRAL AMAUROSIS.

By Dr. IG. MEYER, K.K. Kreisphysicus in Steyer.

[Translated for the Journal by B. JOY JEFFRIES, A.M., M.D., from the Vienna Weekly Medical Journal.]

(Continued from page 155.)

*Trouble of mobility in the limbs*, especially as hemiplegia and paraplegia, was a pretty often noted symptom in the recorded cases, more particularly in diseases of the spinal cord, of the pons and crus, apoplectic effusions, pus and softening in the brain, and with tumors of the hemispheres (4 times in 22 cases). Unilateral paralysis comes apparently most generally with unilateral affections of the pons, corpora striata, optic thalami, and the middle lobes of the cerebrum. According to Romberg, paralysis of one arm or one leg, when dependent on cerebral affection, has its seat always in the cerebrum. Thus in a case of Rosenthal's (*Med. Halle.*, 1863) there was an irregular mass over the left half of the partly flattened pons, and reached over the crus cerebelli ad pontem, left, to the left half of the small hemisphere; the trigeminal was compressed, and the neighborhood of the left facialis and acusticus softened to a mass. Corresponding to this there was during life severe and oppressive pain in the back of the head and temple, amaurosis of both eyes, right-sided paralysis of the facialis and anæsthesia of right side of the face to the lower angle, loss of smell and taste on right side, paralysis of the right abducens and paralysis of the left upper and lower extremity. In a second case in which there was also a tumor in the left half of the pons Varolii and left crus cerebelli, paralysis of the right extremities existed, paralysis and anæsthesia of the left half of the face, then paralysis and anæsthesia of the trigeminal, abducens, facialis

and acusticus, smell and taste weaker left, and imperfect articulation. In a third case, finally (an irregular mass the size of a walnut on the left process cerebelli ad pontem) the left half of the face was paralyzed, the speech unintelligible (intermittent sleeplessness), confusion of objects, difficult motion of left upper and lower extremity.

*Sexual anomalies* were occasionally referable to the diseased condition of the cerebellum. Of the recorded cases, there was only once increased sexual desire, in a man aged 52, where the anterior part of the cerebellum was softened to a pulp, in the centre of which was an apoplectic effusion.

Very praiseworthy attempts have recently been made to diagnosticate the form of the cerebral disease, and more particularly its locality. The difficulties in reference to the diagnosis which still exist in all such cases, authorize us to glean what we can from the records touching this point.

Exudations at the base of the brain and in the ventricles are more readily diagnosticated from the course of the disease and the symptoms. Most prominent and constant were headache (7 times), vomiting (7 times), sopor and coma (5 times), convulsions (4 times), and, finally, difficulties in the motion of the eye. Wunderlich gives as the principal symptom mental bewilderment, progressing to imbecility or idiocy.

*With softening of the brain*, the most frequent symptoms were headache, troubled consciousness, convulsions and paralysis. Difficulties of speech were only in two cases expressly noticed as morbid symptoms. Changes in the mental condition also but twice. (According to Wunderlich these last, and difficulty of speech, especially when it is rapidly followed by hemiplegia, indicate the existence of softening.)

*With cerebral abscesses and pus formation*, there came pretty constantly, headache, often sopor and coma, convulsions and hemiplegia. More seldom noticed were dizziness, mental alterations, epilepsy and troubled motion of the eye. Besides these, headache very intense, dizziness, clonic cramps and twitching, paralysis of one half of the body or one extremity, contractions of the face and deviation of the tongue were recorded as general symptoms of cerebral abscess; more rarely, any marked disturbance of the senses, of sight namely.

In cases recorded as *apoplexy*, besides the usual difficulty of motion (hemiplegia) the principal symptoms were headache, troubled consciousness, dizziness and mental changes. In cerebral hæmorrhage, weakened intelligence and lack of power of

speech accompany the complete hemiplegia; generally facial paralysis, deviation of the uvula and soft palate, and impeded motion of the tongue. The symptoms vary greatly here with the locality of the effusion. In apoplexy, where there is only unilateral disturbed motion, and the mental faculties remain perfect, it may be assumed that the extravasation has taken place in the corpora striata or optic thalami (the centres of motion). Where aneurisms were found, the most frequent appearances were headache, dizziness, impeded movement of the eye, and the consciousness affected.

In *cerebral tumors*, the diagnosis is more difficult, and their locality is hardly if at all to be determined. Cerebral tumors, as is known, often remain a long time latent, especially during their early development; this applies to tumors in the deeper layers of the cerebellum, the posterior lobes of the cerebrum, in the ventricles, often the lateral ventricles, as also with tumors of moderate size in the cortical substance and the surface of the hemispheres. The symptoms much depend upon the pressure which such tumors exercise on definite portions of the brain, as well as on certain nerves, upon the extent of the tumor, and also the accessory hyperæmia, inflammation, extravasations in them or their neighborhood.

Most generally, cerebral tumors first manifest themselves by symptoms of irritation (headache, dizziness, tonic and clonic cramps, disagreeable sensations, pain at various points), and after this by paralysis (commonly hemiplegia), which never comes suddenly, but gradually. The mental functions are impaired, memory and power of thought weakened, and finally complete inability; often there are attacks of epilepsy, and, as final symptoms, marasmus, coma and death. The diagnosis of a tumor is only possible when several functions of the brain are impaired and paralyzed at the same time, the paralysis of a part gradually developing by increasing weakness, and symptoms of irritation existing, temporary or constant, beyond the district of the paralysis. Impairment of the various senses, especially of vision, as also sleepiness, temporary unconsciousness, stiffness in the neck, a sensation of numbness and uncertainty, convulsive twitchings, vomiting without definite cause, are always grave symptoms.

If we endeavor to draw some conclusion as to the locality of the tumor from the appearances especially noticed in these cases recorded, and compare them with what was

observed in the later periods, we may deduce the following:—

1. Tumors in the hemispheres (most frequent in the noted cases) besides the troubles of vision, had, as general symptoms, headache (in nearly all cases), disturbed consciousness, dizziness, and as less frequent appearances formication and deafness, epileptic attacks, hemiplegia, convulsions, sopor and coma and troubled mobility of the eye. In irritating tumors of the peripheric parts of the cerebrum there are often contractions and convulsions, the signs of paralysis and irritation interchanging.

According to the very instructive analysis of Prof. Duchek (*Jahrb. d. Gesellsch. d. Aertze in Wien* 4 Heft. Sept. 1864, &c.) in disease of the anterior lobes (not only tumors but abscesses) there were troubled consciousness and disturbed mental functions; impaired speech only twice in six cases, as also headache, epileptic attacks and paralysis (of the opposite extremities) twice, in the majority sopor and coma towards the end. According to Wunderlich, tumors of the anterior lobes have no constant symptoms. He speaks, however, of impaired mental functions, impeded articulation to complete loss of articulation, and epileptic attacks, as symptoms in some cases. Affections of the convex surface of the cerebrum have, according to Duchek, no definite symptoms. Wunderlich gives disturbance of the mental functions, weakness and partial paralysis of the extremities and facial muscles of the opposite side, in broad tumors of the convex surface, which extend deep inwards.

According to Duchek, there are no disturbances of the mental functions and the senses, in diseases of the middle lobes. Headache was present with all, and subsequent symptoms of paralysis; in one case there were attacks of dizziness, in another of epilepsy. Tumors of these parts can of course affect the trigeminal, trochlearis, abducens, oculomotorius and sometimes the facialis of the same side, interfering also with vision. Duchek says in disease of the posterior lobes (two cases) there were in one case epileptic attacks and paralysis of the extremities of the opposite half of the body.

Vision was destroyed in two cases (Friedrich, Davison and Wunderlich).

With tumors of the corpora striata and optic thalami in which imbecility was present, there were headache, sopor and coma, with difficulty of motion as constant symptoms. Besides these were seen convulsions, photophobia, morbid sensitiveness to sound and vomiting.

According to Duchek unilateral paralysis on the opposite side of the body occurs, with affections of the corpora striata and optic thalamus. In a case of sarcoma of the left optic thalamus (Leyden) there was paralysis agitaus.

In two cases of tumors of the corpora quadrigemina, besides trouble of vision, there was constant headache and dizziness. In isolated disease of the corp. quadrigemina (tubercle in cases of Hensch and Steffen) double paralysis of the oculomotorius (ptosis, squint) was the principal symptom; we may have besides these, symptoms of paralysis in the facialis and the extremities of that side, and, finally, general convulsive cramps.

In tumors at the base of the brain and *fossa sylvii*, besides troubled vision, headache alone was pretty constantly observed. Convulsions were seen three times, disturbance of mental functions twice, and epileptic attacks twice noticed among nine cases.

Tumors of the pituitary gland are of especial interest, as they so often affect the sight. In twenty-two cases headache always occurred. As other symptoms were noticed, paralysis three times, vomiting, sopor and coma with mental disturbance five times, dizziness three times, excitation of the higher senses three times, convulsions, difficulty of swallowing, disturbed consciousness twice.

Duchek, in his two cases, speaks of periodic headache, dizziness, scintillation before the eyes, impaired vision and squinting. Wunderlich speaks of trouble with the sense of smell. In the majority of the cases, however, these symptoms are not much attended to.

[Hedland records (*Ammon's Zeitschr. f. Ophth.* B. V. p. 367) the case of an amaurotic woman who had a tumor of the pituitary gland and disorganization of the brain, with such severe pain in the perfectly healthy pharynx, that she thought she had a tumor there. Paralysis seldom occurs, according to Romberg, with affections of the pituitary gland and its neighborhood; the same in the cases reported by Engel.]

Tumors of the pons and crura cerebri occasioning amaurosis (10 cases), had, as other constant symptoms, headache (8 times), hemiplegia (6 times), and impeded articulation (5 times); besides, occasionally, formication, troubled mobility of the eye (6 times), sopor and coma (each 4 times), difficulty of swallowing (3 times), vomiting twice, twice hearing affected, and twice other senses affected.

The symptoms in affections of the pons



and *crura cerebri* were most thoroughly studied. Duchek noticed paralysis of the oculo-motorius of the same, and of the extremities of the opposite side, in diseases of one crus cerebri. Weber gives as accompanying them, paralysis or weakening of the vagus and sympathetic and impeded function of the intestine.

Duchek gives a résumé of 15 cases of disease of the pons. In cases where death took place in a short time from hæmorrhagic effusion in a large part of the pons, there was sudden unconsciousness and loss of speech, paralysis of motion and sensation in the limbs and great contraction of the pupils. (Brown-Séquard refers this symptom, which in unilateral affections occurs on the opposite side, to trouble of the fifth within the pons.) In cases where there was a more gradual formation of the alterations (tumors), or when with only partial destruction of the elements of the pons life lasted some time, paralysis of the facial nerve appeared either on the same or the opposite side, paralysis of the extremities of the opposite side, or paralysis of all four extremities and the tongue. Intelligence was also affected. In a case of Stein's with chronic primary tubercle of the pons Varolii, intelligence was perfect, but there were affections of the trigeminal and facial and collateral paralysis.

The cases also published by Rosenthal show that tumors of the pons, besides causing paralysis of the motor nerves of the globe, produce also paralysis of the facialis (sometimes of the trigeminal) and hemiplegia of the opposite side. He says that there is generally amblyopia or amaurosis of both eyes, and that smell and taste are sometimes affected; tumors of the middle portion of the pons extending into and pressing the medulla oblongata cause paraplegia or general weakness of all the extremities, mental impairment, difficulty of memory and thought and speech, which last symptoms he refers partly to paralysis of the facial, partly of the hypoglossus, by the tumor pressing on the olivary or pyramid of the medulla oblongata, or on the under wall of the 4th cerebral ventricle.

Affections of the *cerebellum* were rare among the above collected cases of amaurosis. In one case besides it, there was unsteady gait, and pain in the ear, pain in the back of the head and vomiting. According to Wunderlich tumors of the cerebellum generally affect the sight, squinting was not constant but frequent (pressure on trochlearis); the facialis and acusticus were also generally affected.

The most constant symptoms of disease of the cerebellum are, according to Duchek, troubled mobility (general muscular weakness, uncertainty of gait, staggering), the patient walking in a curve to one side or the other. Lack of co-ordinate movement is also noticed with affections of the cerebellum. According to Scherer the pupils are always dilated, the reverse of their contraction in diseases of the pons, only in rapidly fatal hæmorrhage and the invasion of the neighboring parts are they contracted. Jackson, notwithstanding the frequency of amaurosis, does not consider the cerebellum as the centre of the optic fibres, since Comette found, in congenital absence of it, all the senses normal. The amaurosis is due perhaps to participation of the optic thalami. There were no symptoms on the part of the genital system.

In extended *multiple tumors* the symptoms are of course very varied, and any deduction or reference much less possible. In the above seven cases headache (5 times), impaired motion of the globe (4 times), paralysis, convulsions and vomiting (each 3 times), were the principal symptoms. Hearing was affected twice, smell once.

In amaurosis where disease of the spinal cord was found, there were generally present all those symptoms accompanying such affections, namely, paralysis, formication, and impeded articulation. Dizziness was only twice expressly noticed. Hearing or the other senses seldom affected.

In locomotor ataxy (Duchenne), where the posterior roots and posterior cords were affected, impaired sight was noticed, early impeded gait from lack of co-ordination, impaired sensation of touch, and at the same time hyperæsthesia.

Paralysis of the ocular muscles generally preceded the gradually progressive amblyopia. Unilateral dilatation of the pupil was sometimes noticed (if the hardening reached high up in the cervical part of the cord in the upper cervical ganglia, where the commencing irritation or hardening caused a spasmodic condition of the dilator).

Amaurosis may occur also in caries of the spine, a case of which Rosenthal reports (Wiener med. Presse. vi. Jahrgang. nr. 45). A woman, æt. 54, had an S-shaped curvature of the spinal column, a point painful to pressure or without it, over the left posterior crista ossis ilei, hyperæsthesia and severe neuralgia of the thigh and leg, gradual loss of power of walking, and amaurosis of both eyes (ophthalmoscopically, discoloration of the optic papillæ, fatty degeneration of the optic fibres). The other symptoms

in this case were, a bitter taste, occasional gnawing in the stomach, at certain times during the night or day extended redness and burning in one ear and side of the face, periodical increase of temperature and sweating of the left foot and leg; all which denoted irritation of the cerebral and vasomotor nerves; these latter for the limbs, according to the late experiments of Schiff and Bezold, come from the medulla oblongata and spinal cord and partly also from the sympathetic, and so reach the nerves of the extremities.

## Bibliographical Notices.

*A Practical Treatise on the Diseases of Women.* By T. GAILLARD THOMAS, M.D., &c. &c. Second Edition, Revised and Improved. Philadelphia: Henry C. Lea. 1869. 8vo.

This book consists of 647 pages of lucid, condensed, and instructive reading matter, clearly printed in good sized type. There are also no less than 225 illustrations unusually well executed. We have seldom read a medical book in which we found so much to praise, and so little—we can hardly say to object to—to mention with qualified commendation. We had purposed a somewhat extended review with copious extracts, but we hardly know where we should have space for it. We therefore content ourselves with expressing the belief that every practitioner of medicine would do well to possess himself of the work, and to make himself master of its contents. One extract only we give, as furnishing the key-note of the author's uterine pathology. Dr. Thomas had been present in Paris in 1854, during the discussion at the Academy of Medicine with reference to the treatment of uterine displacements, and paid strict attention to its progress. Influenced, he says, "by the arguments which it elicited, and by the teachings of Valleix, whom I daily followed at La Pitié, I was convinced of the truth of Velpeau's position [that displacements are the main thing in uterine pathology]. Experience, however, has led me to dissent from it. I have found most of my cases of displacement which were attended by evil symptoms, to be accompanied by marked evidences of inflammation; have found them usually susceptible of no permanent benefit from replacement; and have obtained relief from the symptoms for which I was called chiefly by means which cured uterine in-

flammation. I have noticed that similar displacements almost invariably result from inflammation which commenced when the uterus was in its proper place; and have seen complete retroversion of the womb where no inflammation existed, produce, after the patient had become accustomed to it, no symptom. These observations have led me to discard the belief in the mere dislocation as being commonly the cause, and induced me to regard it as generally a result of inflammation. In making this statement I am not, however, disposed to deny the occasional morbid agency of uncomplicated displacement which may have resulted from inflammatory action, which has entirely passed away, or from force suddenly or gradually applied, or from loss of power in some of the uterine supports. A source of error which may arise in such cases as to the primary link in the chain of disease, exists in the fact that a displacement induced by the second or third of these causes will sometimes create congestion, inflammation and ulceration of the uterus."—Ed.

## Medical and Surgical Journal.

BOSTON: THURSDAY, APRIL 29, 1869.

NOTE FROM DR. J. B. S. JACKSON IN REPLY TO DR. OLIVER.

MR. EDITOR:—The criticisms in the last number of the JOURNAL by Dr. Oliver of my own (25th ult.) upon Prof. Oppolzer's lecture on "*Ulcus Rotundum Ventriculi*," require some remarks, and they shall be as brief as possible.

Dr. O. has collected a great amount of most valuable information upon the subject in question, and we must certainly be very much obliged to him for the good service that he has done; several of his statements being, I presume, more or less new to most of your readers, as they are to myself.

In my remarks before the Medical Society I made no allusion to authorities, but gave only the general impressions that I had received from the cases that I had seen; and it would be proper for me to state upon what number of cases these impressions were founded. It must have been one of those mere coincidences that we often meet with that Dr. Wood, of Philadelphia, did not see a case of the disease in question during a period of twenty-five years of Hospital practice; and it may be regarded as

a similar coincidence that a very considerable number has been met with here. The number, however, is small, as compared with what might be seen in Europe; but they seem to be enough to justify "general impressions." I was not at all pleased with Prof. O.'s lecture when I first read it; and almost at the moment of setting out for one of the late meetings of the Medical Society, it occurred to me to take the JOURNAL with me and make the remarks that were afterwards published. I had consulted no authorities, nor any of our recorded cases; but, since Dr. O.'s publication, I have examined these last, and they are as follows: In the Medical College Museum there are 14 specimens; in the Medical Society's Cabinet there are 5; and of my own dissections there are 8. Some of the two first were from patients whom I examined; many were received by me in a fresh state; and all of them were examined by me and recorded, more or less fully, in the Catalogues of the College and Society's Museum. One was not properly a case of ulcer, but a case in which there were the two distinct cicatrices of two ulcers; and one was the case of an elephant that I dissected in 1835, and in which a large, circular ulcer was found upon the pylorus. To the above cases, also, there might be added one of which I made a mere memorandum, and in which an ulcer upon the pylorus caused fatal hæmorrhage; and also Dr. Hosmer's case (JOURNAL, 8th inst.), as the specimen was shown at the last meeting of the Medical Society.

Dr. O. thinks that what I say of the term *Ulcus Rotundum Ventriculi* is trivial, but I cannot agree with him. If the name of a thing is descriptive, it should be as nearly as possible correct; and such names in science are very often objectionable, because, with the changes that are constantly going on, it is found that the description will not apply. I made a mistake in saying that the ulcer "always" tends to the round form, and I very well know that such is not the case. In fact, the specimen from Dr. Hosmer's case, above alluded to, was lying upon the Society's table when Dr. O. was reading his remarks, and was a remarkable exception to the contrary. I am well aware, also, that the ulcer is sometimes recent, and have seen a few such; but, when the ulcer looked somewhat so, the symptoms would perhaps show a chronic affection. In a lad who died at the Hospital in 1842, of acute necrosis of the upper maxillary bone, there were two large, gangrenous, and apparently acute ulcers in the stomach. Dr.

O. refers to Cruveilhier; but I think there can be no question that this author regarded the disease as essentially chronic, and only acute by exception.

As to some of my other trivial criticisms, I certainly was serious in what I said of Prof. O.'s free use of the Latin language. We have done away with a great many of the formalities of former times, and with much of our Latin, with the rest; and this change to a greater simplicity is a relief.—I was not aware until recently that the term "ice-pills," in the German, is so generally used; and, as Dr. O. remarks, the translation certainly might have been here improved.\* But it is generally the fashion to translate from the German very literally; and the consequence is that the simplest thoughts are sometimes almost incomprehensible.—What Dr. O. has remarked upon what I said of the "magistry" of bismuth is very true. It is no more objectionable than the term lunar caustic; but we have enough of such terms already, and do not want to have any more imported. Language in some measure is a matter of taste, and I did not attach any importance to these last criticisms, though I did to what was said of the term "*ulcus rotundum*."

In a sentence that I quoted from Prof. O.'s lecture a comma was inadvertently put in where there should have been none, as Dr. O. states. I can see no possible objection to it; but, on leaving it out, and even with the aid of the next sentence, the meaning is beyond my comprehension. The obscurity is in the expression "during the night."

I also allow that I misunderstood what Prof. O. says of the use of belladonna as a substitute for morphia.

In the case of perforation, it seems strange, as I remarked, that Prof. O. should not have alluded to the use of opiates; but it appears that in a lecture that was translated by Dr. Coolidge he does so. So important a point in practice, however, should, it seems to me, be alluded to by Prof. O. whenever he speaks at all fully upon the subject of perforation. In this last lecture referred to he says that opium is the best agent in "danger of perforation;" and if he means to say when there is a threatening of perforation, I would ask how he would be sure of this? In our cases, certainly, the accident occurs without warning.

Prof. O. says that the pain is "continu-

\* So far as we are informed the translation was quite correct. All that was wanted would seem to be a footnote explanatory of what the Germans mean by "ice-pills."—EDITOR.

ous" when perforation occurs—from peritonitis, of course; and Dr. O. remarks that he is not speaking of the severity of the pain. Now, that is just what I intended to say, and found fault with—that he does not speak of it. As to recovery in case of perforation, of which there would seem to be so considerable a chance, according to the authors quoted by Dr. O., I think that we must make some allowance for error of diagnosis; the existence of the disease in question being by no means always an established fact.

The proportion of 147 cicatrices to 156 ulcers, referred to by Dr. O., is something that would be inconceivable, were it not for the coincidences to which I have already referred as of such frequent occurrence. In the case of cicatrization that I examined, and above alluded to, the appearance upon the external surface was as if the organ had been stabbed through with a knife. One other very much less marked case I remember, but I cannot find the record. These, I believe, are all that I have seen; and I intended to make the number large enough when I said that I had never met with cicatrices more than two or three times. It is, of course, out of the question to hunt through a pile of cases for a negative.

As to the *conchæ preparate*, I am very sorry to see that I read Prof. O.'s remarks carelessly, and consequently misunderstood him; but I do not feel so sure as Dr. O. seems to that Prof. O. would not use the remedy if he thought it best, and let his patients bear with some disagreeable sensation in the stomach. And the allusion to the dog's dung might have been spared if Prof. O. had much objected to that remedy. When he has so much that is valuable to say to his class, his time might be better occupied than in referring to the objectionable and disgusting remedies of by-gone days.

As to some of the other points referred to by Dr. O.—the size of the stomach, the hour-glass contraction, the condition of the mucous membrane, the use of the term necrosis, the distention of the abdomen and the occurrence of phthisis at the close of the disease—I can only, after having examined the cases that have occurred here, reiterate what I have already said.

Before closing, I wish to say what I should have said in my first remarks, that I have always heard the very highest praises of Prof. O., as a man of erudition and especially as a clinical teacher. But I must add that, after making all due allowance for the criticisms upon my first re-

marks, there still seem to me to be some very objectionable points in the lecture.

Yours very truly,

J. B. S. JACKSON.

P. S.—It is of course understood that the cases observed here and above referred to were not common chronic ulcerations of the stomach, but cases of "chronic," "round," or "perforating ulcer," several of them terminating in perforation or hæmorrhage.

#### NOTES FROM THE GAZETTE HEBDOMADAIRE DE MEDECINE ET DE CHIRURGIE.

*Thoracentesis*.—A writer in the *Gazette* refers to its citation in 1863 of Dr. Bowditch's statistics setting forth that out of 75 patients subjected to thoracentesis 20 recovered their health, and pronounces the operation a therapeutic conquest of great value. Dr. Fossagrives takes the ground that the utility of the operation is "subordinated to a question of opportunity," i. e. that the time when it is done should be well chosen. He is in favor of early puncture—say when inflammatory action has begun to subside. While he cannot see what harm can come from premature puncture, he sees but too well, and in consequence of a long series of sad recollections, the injuries produced by an effusion which perpetuates itself, which compresses and crowds the lung, which puts upon it a cowl of unyielding false membrane, and which, in ordinary cases, leads the patient through a thousand dangers made up of asphyxia, of purulent formation, of hectic fever, to a condition which can only by comparison be called recovery, and which is attended with a functionally imperfect lung, and often with irremediable deformity of the chest.

*Della famosa Tarantola*.—The *Gazette*, quoting from the *Gazetta Medica Italiana Lombardia*, says we must renounce the marvellous history of the tarantula, and conclude that the stories about the effects produced by the sting of that colossal spider have sprung from imposture, credulity, and the effects of nervous disorders, of the nature of hysteria or of melancholy. Prof. Paolo Panceri has caused to be bitten by the *Lycosa tarantula*—to which has been most especially attributed *tarentism*—a turtle, on the lower lip; an aquatic salaman-

der, on the back; a pigeon, on the breast, &c. He then induced a tarantula obligingly to bite the upper lip of a rabbit. Finally, that nothing should be wanting to the demonstration, Prof. Francesco Gassi was happy enough to get himself bitten on the left hand. The result of the experiments—which were made in June and July, 1868—was that the bite of the tarantula does not differ from that of an ordinary spider, except that the former produces somewhat greater pain and swelling.

*The Nerves of the Cornea.*—The same journal quotes from the *Zeitschrift für Rationelle Medicin* von Henle u. Pfeufer, the experiments of Dr. H. Peter Möller on the nerves of the cornea. The conclusions of the German observer are to this effect. Having impregnated the nerves with chloride of gold, Dr. Peter Möller examined them as colored by that agent, and reports that though the "nerve tubes" cross the corpuscles of the cornea and are apparently in close contact with them, yet the former are never in real connection with the latter—are not "continuous with their substance."

CANCEROUS TUMOR SAID TO HAVE BEEN CURED BY GASTRIC JUICE.—M. Garnier, in the *Union Médicale* for April 10th, 1869, describes a case of tumor—alleged to be cancerous—of the left temporal region, removed, *digested away*, by gastric juice obtained from the stomach of a dog through an artificial fistula. The case was treated at the Hospital of Lodi, by Dr. Tansini, where the patient, a woman 52 years of age, entered the 13th of January, 1868. She was discharged the 19th of the following March, perfectly freed from her tumor, and in a very satisfactory general condition.

As no careful differential diagnosis had been set up, M. Garnier justly considers it doubtful whether the tumor were a cancer or a simple ulcerating epithelioma. He remarks that the acetic acid treatment imported into France from England was effectual in epithelioma, though not in cancer, and that if the tumor in Dr. Tan ni's case were the former, there was nothing strange in its destruction by gastric juice. M. Garnier, after stating that this agent had

been praised by Professor Lussana as capable of *digesting* tumors of "bad character," goes on to describe the rules laid down by that "physiological savant" for its employment; and adds that it only remains to test it upon ulcerated cancers, and fully declared scirrhus of the breast.

We would add the question whether there is any reason to suppose cancer of the stomach to be limited by the action of the gastric juice.

PHYSIOLOGY, &C., IN SCHOOLS. PROF. DALTON'S BOOK. EXTRACT FROM THE VALEDICTORY ADDRESS OF PROF. CLARKE.—"Formerly no instruction in anatomy, physiology, therapeutics or hygiene was given in our public and private schools. Now this is often done. The tendency of the age is in favor of the change. I will not stop to inquire whether this tendency is a wise one or not. I only state the fact, without discussing the principle that underlies it. The fact that the public demands, and that our schools are giving, instruction in medical and physiological matters confronts us, and we must accept it. Yet, I fear that the text-books employed, and the instruction given, are not of the best sort. A brief examination of some of the physiological and semi-medical books used in our schools has convinced me that they are far from correct. If it be true that a little knowledge is a dangerous thing, it is also true that misstatements, error and falsehood, especially when heralded by authority, are more dangerous still. They are then pernicious. It would be better for the youth of both sexes to grow up ignorant of the structure of their bodies and of the beneficent laws of health, and so be guided by the instincts which a good Providence has bestowed on man, than to be taught false theories and half truths. The latter are blind guides and lead to destruction. . . .

"Then let the experiment of rudimentary education in the various branches of medicine, especially in anatomy, physiology, therapeutics and hygiene, be fairly tried in our schools. Let it be tried in the best manner. If it fails, after a fair and satisfactory trial, it will be given up. But in order to make the experiment a fair one the medical profession must direct it. I cannot say that I have any hearty faith as to the good that will come of it. Yet I do not know—none of us can know—how far the knowledge of a peculiar and recondite science like medicine can be wisely diffused among the

public. We must wait the developments of the age, and accept the result. . . .

"One word as to text-books. Most of the books used for this sort of rudimentary and popular medical education have been written by imperfectly educated medical men, or by amateurs, or by charlatans. The result has been a sort of unwholesome medical literature, that has poisoned and not invigorated, that has misled and not enlightened the minds of our youth. If this difficulty can be remedied it will be for you to prepare and apply the remedy. If books of any real value can be produced they must be written by our most learned and accomplished physicians. The preparation of a good text-book for beginners implies the completest knowledge of a science on the part of its author. . . . You must master a science before you can explain its smallest fact."

Dr. Clark concludes his remarks on this head by rejoicing with the rest of the profession that "within the last year a text-book of physiology for schools and academies has been prepared by one of the most accomplished of American physiologists—Dr. John C. Dalton."

EXTRACTS FROM THE FIFTY-FIRST ANNUAL REPORT OF THE McLEAN ASYLUM FOR THE INSANE, JAN. 1, 1869.—Two hundred and seventy persons have been under treatment at the Asylum during the year just closed. One hundred and twenty-six of these were males and one hundred and forty-four were females. In the same time, ninety-two—thirty-eight males and fifty-four females—have been admitted. Ninety-four—forty-five males and forty-nine females—have been dismissed, leaving the number occupying the house to-day, one hundred and seventy-six, of whom eighty-one are males and ninety-five are females. The condition of those dismissed, has been registered as follows: thirty-four—sixteen males and eighteen females—*recovered*; seven—three males and four females—*much improved*; twenty-two—ten males and twelve females—*improved*; eight—four of each sex—*not improved*; twenty-three—twelve males and eleven females—*dead*. In the early part of the year, nineteen persons were discharged by your direction, whose condition did not appear to be such, either in appreciation of comforts, necessity of care, or prospect of cure, as would warrant, on the part of their friends or of the Asylum, the expenditure requisite for a longer residence here. This, however, has reduced the weekly average

number of persons to one hundred and sixty-six—a number less by twenty, than the average for many years. For many weeks, the whole number of patients was about one hundred and sixty. It has gradually increased, until it is to-day, one hundred and seventy-six—less by only two, than upon the first of January, 1868. This reduction of numbers has increased the average cost of board to each patient, while the ordinary expenses of the Asylum have not been very different from those of the year previous. . . .

Very nearly the same general and abundant means of occupation, recreation and amusement have been in operation, as have been described in former reports. We are again under great obligations to Dr. Walker and the Directors of the South Boston Hospital, for several charming harbor excursions for the patients; to Mr. Kimball for free admission to the Museum, and to Dr. Upham for tickets to the Great Organ Concerts. . . .

The Association of Superintendents of American Institutions for the Insane, held its last annual meeting in Boston. A part of one day was spent by the members in examining every portion of our premises, indoors and out, and a session for business was holden here. This Association, composed of medical men who are at the head of establishments for the insane in all the States, has for some years had under consideration "the legal relations of the insane." After many prolonged discussions and a careful examination of the subject in all its various aspects, a "project of a law" was unanimously agreed upon, as ensuring as far as legislation can, the prompt care of the patient, the protection of his personal liberty and the safety of the public. This "project" is printed as an Appendix to this Report.

EXTRAORDINARY RECOVERY.—The *Russian River Flag* of Feb. 11th tells the annexed:—

On our recent tour through Mendocino county, we made the acquaintance of B. F. Chase, a foreman in the Caspar mill, who received a wound in July, 1864, the nature of which, and his complete recovery, furnishes one of the most remarkable cases of the kind to be found on record. He was doing some work under a picket saw, which, when in motion, runs at a tremendous speed. Inadvertently raising his head against the saw, he instantaneously received a cut beginning at the frontal bone, one-half inch above the nose, and running back to the

occipital bone, making an incision nine inches in length (taking in the convexity of the skull). Dr. A. C. Folsom was sent for and arrived in half an hour. He very naturally supposed the wound was a fatal one, and at first thought that it would be useless to dress it, believing the man would die within a few minutes. But Mr. Chase being perfectly conscious and suffering no pain whatever, the doctor finally concluded to attempt a careful dressing, even if the patient should die under the operation—encouraged somewhat, he says, by remembering the case of the man in Vermont who had a tamping iron blown through his head and recovered therefrom. The cut in Mr. Chase's head gaped open so that the skull bones were a full inch apart. The doctor made no attempt to probe the depth, but did insert a pocket rule  $1\frac{1}{2}$  inches into the brain (besides the thickness of the skull-bone), which was as far as it would go without touching the walls of the cut. On account of its circular shape the saw must have penetrated the brain much deeper than a point on a straight line from one extremity of the wound to the other. Dr. Folsom estimated that the brain was cut nearly to its base, or fully three inches deep. He carefully removed all fragments of the skull—taking out over 30 pieces—and washed out the sawdust that had got into the opening, using warm water to promote hæmorrhage, which was slight for such an extensive wound. He also washed out more than a table-spoonful of brain. How much more the saw carried away we can only conjecture. The doctor then shaved the scalp, applied a tourniquet to bring the bones together, and closed the aperture with six stitches, finishing with adhesive plaster, and leaving three openings, one at each end and one in the centre. The only dressing ever used was cold water.

The patient was in possession of all his faculties during the whole time, and said he experienced no pain then nor afterwards until he was entirely recovered. He visited the mill in about four weeks after the accident, and soon after resumed his duties as filer and foreman, which position he still holds. He says he never lost sleep or appetite, or experienced any physical or mental pain or weakness from his wound. The doctor's theory for this wonderful case is that the wound was a clean, smooth cut, unaccompanied by concussion, and that it is usually the concussion and not the incision of the brain that causes death.

We are indebted for the foregoing facts to Dr. Folsom himself. He related the case

to us in presence of several gentlemen who were also acquainted with the circumstances. The Doctor said he would have sent a statement of the case to the medical journals shortly after the occurrence, but he was firm in the belief for a year or two that his patient would ultimately die of the injury.

Mr. Chase now seems to have as long a lease on his life as anybody, and as to his soundness of mind, we can say in proof that on reading the *Flag* he immediately subscribed for it.

The foregoing account was transmitted to us by a friend, to whom it was sent. We have no opinion to give on the subject of the alleged case. Since the antics of iron bars, gas pipes, and the like, skepticism is discomfited, and dares not utter itself. Brains do not seem to be of much account nowadays. At the same time consciousness does not reveal the existence in any part of our cerebrum of a belief that a man can have his calvaria sawed nearly off and live. Meanwhile, Dr. J. M. Harlow has undertaken to write to California, to ascertain what basis of fact there is for the story.

**WEIGHT OF THE BRAIN.**—At a meeting of the Vienna Society for Psychiatria and Forensic Psychology, prosector Dr. Meynert gave some statistics on the weight of the brain. His deductions from the weight of 351 brains, as well as those of Parchappe from 284, prove that the influence of psychoses is much greater than age on the weight of this organ. For example, during the physiologically blooming age of the brain's weight (30—40 years in males), a mean of only 1,317 grammes was given, because brains of the later stages of psychoses were mingled with the others weighed; on the other hand, in the primary stage of psychoses, without regard to age, a mean of 1,329 grammes was given for conditions of depression and 1,359 for mania. Furthermore, the reduction of weight was always equal to the duration of the disease. It was also found to depend upon the intensity of the latter, as paralytic idiocy was characterized by a great reduction of weight. Meynert also found that insane brains had more cerebellum, proportionally, than sane; and that insane females had more than insane males.—*Medical Press and Circular*.

At the recent commencement of the St. Louis Medical College the degree of M.D. was conferred on 47 graduates.

## Medical Miscellany.

OUR attention has been called to the following passage in the report (*Medical Times and Gazette*) of the Annual Congress of German Naturalists and Physicians:—

"Prof. Zenker, of Erlangen, who, as is well known, was the first to observe and recognize trichina disease in the living subject, communicated the results of his investigations into the 'Life and History of *Oxyuris vermicularis*.' He found that the real seat of this parasite—that is, the place where the female worms love to reside and congregate—is not the rectum, as has been generally assumed, but the cæcum; and that the males, which were formerly believed to be extremely rare, are just as numerous as the females. The history of the worm is the following:—Embryonic ova are swallowed; the embryos are set free in the stomach and grow up in the small intestines, being found in all parts of the latter from the duodenum downwards, and in all stages of development. They here undergo a process of moulting, and then assume the definite form of males and females. Fecundation frequently takes place in the small intestines. The females, after having been impregnated, rapidly migrate into the large intestines, while the males spend a longer time in the jejunum, and are found in large masses in the lower portion of the ilium, especially near the cæcal valve. A drop of mucus taken thence often contains a dozen males without a single female. Impregnated females accumulate in the cæcum, but the ova are not excreted in the cæcum, nor, indeed, in the upper portion of the large intestines. The development of the vitellus is now proceeding, but the ova are only set free in the rectum, near the anus, or after the worms have been discharged from the bowel. A further development of the embryos in the open air, or in an intermediate host, does not take place, and infection occurs by swallowing embryonic ova."

**KRISTELLER'S METHOD.**—Herr Hilderbrandt referred (*Berliner Klin. Wochenschrift*) to this method of expressing the fetus, at a meeting of the Königsberg Med. Society, April 14th, 1868. He first resorted to it with great hesitation, and in a case favorable for the trial it succeeded so well as to astonish him. It was in the case of a second pain, in transverse position, head on left ilium, four extremities presenting. An assistant had failed in an attempt to turn by the feet. He put back both feet, then the arms, caused the head to present by means of pressure from without, then made one or two strong compressures *à la* Kristeller, and saw, during the same, the rapid and happy birth of a living child. Since then he has tried the method in a number of cases, and recommends it.—*Dublin Medical Press and Circular*.

**EARLY TREATMENT OF THE INSANE.**—In the province of Westphalia the directors of the Marsberg and Lengerich Insane Asylums have ordered that native patients shall be subsisted free of cost during the first year of their malady. This is done in order that cases may be placed under treatment

while yet in the initial stage. They claim to cure 80—90 per cent. of all cases admitted during the first month of the disease, fewer with every additional month, and assert that incurability is the rule after one year's duration.—*Berliner Klinische Wochenschrift*.

**LOSS OF THE NAILS.**—Mr. Wilkin, of Staplehurst (*Journal of Cutaneous Medicine*), reports a case of obstruction of the brachial artery from embolism, produced by a fragment of fibrinous clot supposed to be detached from the left ventricle of the heart. The arm became pale, cold and shrunken; it was pulseless, and as it recovered its strength the nails of the fingers were shed.—*N. Y. Medical Record*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—We depart from our usual course in giving a list of communications accepted. We do this because some of them being long several weeks will necessarily elapse before all of them get into print:—Phys. and Ther. Uses of Ergot; Indiscrim. use of Acid Medicines; Path. Anat. of Surg. Stumps; City Hospital Reports; Eye and Ear Infirmary Reports; Nomenclature of Cutaneous Dis.; Arrest of Development of the Eye; Constriction of the Oesophagus; Cancer of Kidney in Infant; Cases in Aural Practice; Notice of Lunatic Hospital at Harrisburg; Tedious Labor, Incision, &c.; Herpes Zoster Ophthalm.; Spontaneous Cure of Tumor during Pregnancy; Paralysis of Motor Nerves of the Eye; Typhoid Fever, &c.; Mania Transitoria.

BOOKS AND PAMPHLETS RECEIVED.—A Treatise on the Function of Digestion; its Disorders and their Treatment. By F. W. Pavy, M.D., F.R.S., &c. From the Second London Edition. Philadelphia: Henry C. Lea. 1869.—The Probe; An Inquiry into the Use of Stimulants and Narcotics, the Social Evils resulting therefrom, and Methods of Reform and Cure. By Joseph Parrish, M.D., Philadelphia.—Twentieth Annual Announcement of the Woman's Medical College of Pennsylvania.

DEATHS IN BOSTON for the week ending Saturday noon, April 24th, 96. Males, 42—Females, 54.—Absecess, 1—accident, 1—apoplexy, 1—asthma, 1—inflammation of the bowels, 2—disease of the brain, 2—bronchitis, 4—cancer, 3—consumption, 20—convulsions, 3—croup, 2—diarrhea, 2—diphtheria, 1—dropsy of the brain, 1—drowned, 2—dysentery, 2—erysipelas, 1—exhaustion, 1—scarlet fever, 11—typhoid fever, 1—disease of the heart, 2—infantile disease, 2—intemperance, 3—jaundice, 1—disease of the kidneys, 3—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 1—measles, 1—cerebro-spinal meningitis, 1—old age, 2—paralysis, 1—peritonitis, 1—pleurisy, 1—premature birth, 1—scalded, 1—syphilis, 1—unknown, 6.  
Under 5 years of age, 35—between 5 and 20 years, 5—between 20 and 40 years, 25—between 40 and 60 years, 19—above 60 years, 12. Born in the United States, 67—Ireland, 21—other places, 8.



## Original Communications.

## THE PATHOLOGICAL ANATOMY OF SURGICAL STUMPS.

By Dr. CHAUVEL (Army Medical Staff).

Translated for the Journal from the Archives Générales de Médecine for March, 1869, by B. E. COTTING, M.D., of Roxbury.

WHILE two years attached to the Infirmary of the *Hôtel des Invalides*, we dissected and examined all the surgical stumps of those who died there during that period, and we propose to give a condensed statement of the results of our researches in the following paper, after a few words on the history of the subject.

*History.*—The first observations on the condition of surgical stumps date from the close of the last century. They were made in Germany, and form two inaugural theses. (Dezeimeris, Dict. de Méd.—Art. *Amputation*.)

In France Larrey took up these researches during his residence at the *Invalides*. The conclusions he arrived at may be found in volume third of his *Clinique Chirurgicale*. He insists mainly on the changes which take place in the divided nerves. He verifies the tumefaction of their extremities, from which (according to him) very delicate filaments issue to lose themselves in the cicatrices. He considers these filaments conductors of animal electricity. He meets with unusual reunions of divided nerves in three stumps of the arm; and sees in these nerve-anastomoses a provision of nature to prevent loss of nervous fluid by thus insuring its return to its source.

Changes in the osseous extremities did not escape notice. According to him, when these serve as supports upon their whole surface, they enlarge, and the ends become flattened, like nail-heads. On the contrary, when not pressed upon, or when hanging free, the ends diminish in all directions and become rounded; the medullary cavity closes up, and the fibrous periosteal tissue adheres to the cicatrix. Larrey sustains these views by seven autopsies.

Cruveilhier (*Anat. Path.*, iii. p. 755), un-

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der the name of *traumatic neuromata*, designates the bulbs usually developed on the ends of the nerves in surgical stumps. He attributes their formation to the friction and pressure necessarily endured by these parts, as such formations never occur when nerves are divided in continuity. Dissection shows, says he, that nerve-filaments spread out into the surrounding mass, and are soon lost; but the supposition of anastomosing loops is, he thinks, without foundation in fact.

Guthrie (*Comm.*, p. 75) relates that he once knew an operation to be proposed where tenderness of the terminal bulb of the sciatic nerve, after amputation of the thigh, had been mistaken for disease. Fortunately he was able to dissuade the patient. We have many times endeavored to feel the terminal bulb of the sciatic nerve in patients whose thighs had been amputated, but have never been able to find it.\*

Hutin (*Anat. Path.*, &c.—*Mém. Acad. Méd.* 1855), long time Chief Physician of the *Invalides*, paid great attention to the condition of the several parts forming the stump. He studied the cicatrization of the arteries, finding them sometimes converted into fibrous cords, sometimes permeable to the very extremity, being simply obliterated by a long plug of fibrin, thick and discolored, without trace of organization.

He also examined with much care the nerve-bulbs, their appearance, structure, and termination. According to him, the filaments which issue from them are either nerve fibres, or simple cellular prolongations furnished by the neurilemma. The nascent bulb is formed by the retraction of the nerve substance within the neurilemma stretched by the cicatrix. At a later period it becomes more or less increased in size by addition of fat and hypertrophy of the neurilemma. He declares that re-union, end to end, of divided nerves does not exist in reality. By chance, nerves may be found involved in common fibrous tissue, and thus

\* . . . "The extremity of the principal nerve, which always enlarges, assumes a bulbous form, and is painful on pressure when made for the purpose, although not so under ordinary circumstances."—Guthrie, *Com.*, 1855, p. 75.—Tr.

apparently re-united, but there is never a true reunion of their substance.

The bones, he says, soften at their extremities; their walls contract; and the medullary cavity closes by a calcareous deposit in the cicatricial tissue. This substance in excess often forms prolongations, spines, and considerable masses, which, by pressure on the soft parts and nerves, cause severe pains to patients.

M. Notta has endeavored to show that the fibrous cord continues even to the cicatrix, and what is usually thought to be the obliterated artery is in reality only inodular tissue formed by the cicatrization of a fistula produced by the thread of the ligature.

Lobstein (*Anat. Path.*) calls attention to the mucous bursæ sometimes occurring on the osseous extremities in stumps; formed there, he thinks, by the repeated frictions these parts are liable to.

Legouest (*Chirurg. d'Armée*) admits the re-union of the nerve-extremities end to end. He describes growths on the ends of bones, from specimens in the collection of M. Ilutin, and gives figures of some of the most remarkable. He points out a different result in this respect, after disarticulations, where the bones, he finds, become atrophied.

Alphonse Guérin (*Nouv. Dict. de Méd. et de Chir. Prat.*, ii. p. 87) doubts the propriety of regarding the nerve-swollings in stumps as a disease like neuroma, whose symptoms they are far from presenting.

We may mention, also, as bearing upon our subject, a notice of the atrophy of arterial walls by Maurice Raynaud (*Nouv. Dict. de Méd. &c.*, iii. p. 232); and Nélaton's view of the transformation of an artery into a firm ligamentous cord (*id.* iii. p. 172). He regards this as constant after a section of a vessel, and as the normal mode of vascular obliteration.

*Researches.*—Our own conclusions are based upon thirty-two cases, as follows:—

Amputations, thigh	{ upper third,	3
	{ middle " "	4
	{ lower " "	4—11
" leg	" " " "	8
" arm	" " " "	6
" forearm	" " " "	1
" hand	" " " "	1
Disarticulation, ante-scaploid	" " " "	1
" shoulder	" " " "	4

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In a general view, the form of the stump varied with the member amputated. In limbs of one bone (thigh, arm) the stump always tended to conicity. This was produced by muscular retraction, and some-

times had been increased by wearing an artificial limb. The skin was also retracted, and the cicatrix in this way so drawn upon as to keep up the tendency of the bone to protrude.

There was less conicity in members of two bones, as the shorter muscular fibres were fixed to the bones near by, and the skin, held down by more compact cellular tissue, had less freedom in retraction.

On first section of a stump one is struck by the abundance of fibrous tissue, dense and firm, enveloping the osseous extremity. It attaches muscles, nerves and vessels to the cutaneous cicatrix, and thus serves as a common bond, uniting all these dissimilar parts. Its volume is increased at the expense of other substance lost by the operation.

The actual state of the stump in our cases varied according to the disease to which the patient succumbed. If he died of a constitutional affection, cancer or tubercle, the stump shared the atrophy and emaciation characteristic of the last stages of such diseases. Its skin was then dingy and sallow, the muscles were atrophied, and all the parts infiltrated with serum. If, on the contrary, the patient continued in good case, the stump remained well nourished, while a deep layer of fat thickened the skin and enveloped the thoroughly degenerated muscles.

*State of the Cicatrices.*—Can the method of operation be made out by the form and position of the cicatrix? Not easily, says M. Legouest and rightly. In almost all the cases we examined the circular method had been practised; and, nevertheless, in our eleven amputations of the thigh, for example, we found six circular and five linear cicatrices, almost invariably drawn a little backwards and inwards. The cicatrix, in short, varied according as the union was wholly or in part by first intention, or interrupted in any way in its usual course.

In two disarticulations of the shoulder, however, the cicatrix clearly indicated the method employed, that of Larrey in the first, of Dupuytren in the second. In the amputations of the leg and arm, the method could not be ascertained by the cicatrix.

Cicatrices resulting from the same method not only varied in form and extent, but also in their nature and color; sometimes smooth, dull white, and quite thin, at other times violet, rugous, deeply injected and of great thickness. Generally the cicatrix adhered to the end of the bone by short interwoven fibrous bands. Occasionally these bands were elongated, and formed a mucous sub-

cicatricial bursa. We met with such a bursa three times.

*State of the Muscles.*—Fatty degeneration of the muscles has been described by all writers. It was recorded, with the atrophy that accompanies it, in almost all our observations. Naturally, a muscle mused loses its powers and normal structure. This is a gradual transformation, and requires considerable time. We met with it in all degrees, both in different subjects, and in different muscles of the same stump. In some the change was so slight that the color, volume, and tenacity of the muscle were as of healthy tissue; and the loss of strie, if any, in its fibres, and commencing granular condition, were ascertainable only by the microscope. In others the degeneration was so complete that the naked eye could perceive only a shiny, bleached, and almost fluid mass, breaking down under the fingers; while the microscope revealed large globules of fat, and only here and there vestiges of primitive tissue. In these results not only age had an influence, but nutrition also, in its bearing upon the general health and free circulation.

Nevertheless, it must not be thought that every muscle divided in amputation must of necessity become atrophied and fatty. Sometimes when thus deprived of one point of attachment the muscle soon begins to acquire others. It fixes itself upon the new formations of bone, or finds a point of support in the common fibrous tissue to which itself contributes a portion, and, in as far as its nerves are not destroyed and its functions are called into action, we find its volume and structure preserved. We do not state this upon hypothesis; five of our observations demonstrated the truth of the assertion.

We need not add more upon fatty degeneration, as it has been studied for a long time, and is now well understood.

*State of the Vessels.*—Many and very important works have been published on the cicatrization of vessels cut in continuity, having for their special object the mode of occlusion of arteries. The solution of a problem in pathological anatomy has not been so much sought for as the surest way to obtain a closure of the vessel. Ligation continues still the usual practice in amputations.

Our observations have been confined to stumps long after cicatrization had finished, and therefore we will now discuss only the following points:—

Does the fibrinous clot-plug continue indefinitely in the vessel?

Is the clot susceptible of becoming organized and of establishing with the vascular wall intimate adhesions, fully organized and traversed by vessels?

Can the clot-plug be completely absorbed; and in such case can the walls of the vessel unite so as to form only a fibrous cord?

Does the arterial wall become thin, so as to resemble that of a vein?

M. Hutin, in his remarkable work, records the persistence of the clot-plug, filling the cavity of the vessel, long years after the amputation. This we have met with nine times in thirty-two cases, or one more than a quarter part. In all these cases the clot was fibrinous, whitish, firm, and formed in concentric layers—variable in dimensions and extent. It was sometimes prolonged up to the first important collateral from the very extremity of the artery; at others no collateral marked its upper limit, while below it was lost in the walls of the artery so closely united as to transform the vessel into a simple fibrous cord.

In none of these cases did the clot-plug present any traces of organization. Microscopic examination showed only fibrin more or less disaggregated, never any vessels. Sometimes the adhesions to the arterial walls were very intimate, but more often the clot separated readily.

The absorption of the clot-plug, with the intimate and complete fusion of the walls of the artery, which was thus transformed into a simple fibrous cord, was met with more frequently. We noticed this in fourteen, or almost half our cases. This transformation varied greatly. The adhesions were rarely abrupt; and the vessel seldom maintained its normal calibre upwards. Accompanied by a vein still more feeble than itself, and proportioned to the parts to be nourished, the artery at once began to lose its dimensions. As it approached the stump it contracted, sometimes gradually, sometimes suddenly after having given off an important collateral. This diminution of calibre was noted fifteen times in thirty-two cases, and this, too, where the anatomical situation permitted the easiest demonstration of its reality. It was thus that in amputation of the arm at the upper third, and in disarticulations of the shoulder, the axillary artery, after having furnished scapular branches, shrivelled and became a true arteriole. There was no further occasion for it.

In one instance only have we noticed the vascular wall thinned, resembling that of a vein. Oftener, four times, we have found it notably thickened.

Besides these two modes of termination, sometimes the artery continued permeable even to its extremity, without clot-plug or fibrous terminal cord. Then the calibre either gradually diminished to the point of closure, or, on the contrary, remained unchanged, presenting the appearance a vessel should have immediately after ligation, i.e., a true *cul-de-sac*. When the latter occurred, a cluster of arterioles was not infrequently found arising from this *cul-de-sac* to spread themselves into the common fibrous tissue. We have met with this permeability eight times, and in half of these cases the calibre of the vessel remained unaltered to its extremity.

With M. Hutin, we have very seldom met with a fibrous cord which prolonged the artery to the cutaneous cicatrix, or that which M. Notta thought to be an indolular band, corresponding to the former passage of the ligature of the vessel. We have always found the artery itself terminating at a distance from the cutaneous cicatrix, varying according to the greater or less hindrance to the vessel's retraction. Cut in the middle of the thigh, the artery will retract strongly within its sheath. It preserves its original position only when retained in it by fibrous adhesions.

We have not found atheromatous degeneration when present more frequent or more advanced in the arteries of the amputated member than in other parts.

*State of the Veins.*—Cicatrization of the veins has not been studied with the same care as that of the arteries. The direction of the sanguineous current and the presence of valves opposing its return, render, in fact, venous hemorrhages less frequent than arterial. If a vein is tied, obliteration seems to take place by adhesive phlebitis, forming a clot which is afterwards absorbed. The walls of the vessel then immediately fall together, and are soon completely united. Thus, at least, we have always found it in our investigations.

*State of the Nerves.*—Nerve-anastomosis, maintained by Larrey as a constant fact, and denied by Hutin who saw in it only a simple contact, has never appeared under our observation. Once we saw an internal cutaneous nerve seeming to be confounded by a loop with a median in the same terminal enlargement, but it was only a semblance, a simple juxtaposition of the terminal neuromata of these two nerve-trunks.

Sometimes two nerves in contact were thus commingled in the terminal tumor. Sometimes a whole cluster of nerves were likewise englobed in one neuroma, as was

especially seen in disarticulations of the shoulder. But even in these cases there never was an anastomosis. At one time the separate neuromata were intimately united to form one single mass where each, nevertheless, could be distinguished. At another time these neuromata, although buried in a common adipose tissue, had no connection whatever between themselves. We met with each of these conditions four times in eight amputations, of the arm and at the shoulder-joint.

We may conclude, then, that real nerve-anastomosis is very questionable; that even apparent anastomosis is very rare; and that, for the most part, the nerves have isolated terminations, although their extremities be enclosed in the same fibrous cicatricial tissue.

Larrey first demonstrated the termination of the divided nerves of a stump in a tubercle more or less voluminous and rounded; from which, according to him, nerve-filaments diverged to conduct the animal electricity to the cicatrix.

Now, nerves for which there is no longer any use, present to the naked eye normal dimensions and aspect; and, on section, we almost invariably found them healthy under the microscope. But in a certain number of cases we met with the following state of things:—

On longitudinal section three layers were readily made out:—1, the external, thin and white, formed by the neurilemma, a dense connective tissue; 2, the middle, yellow and often increased by adipose matter as it approached the terminal protuberance, being composed of a very loose connective tissue, with interspaces filled with fat; 3, the central, consisting of a white cord, variable in thickness, and dividing so as to be lost in the terminal bulb. This cord was composed exclusively of unaltered primitive nerve-fibres.

This condition we have only seldom fallen in with. Is it a cadaveric phenomenon, the result of an alteration of a nerve after death? Nothing appeared that could give rise to such a supposition; and there were no peculiarities in the subjects adequate to the solution of the question. The autopsies were made at equal intervals after death. We must add, however, that we have met with this condition only in obese individuals, in stumps loaded with fat, and where the muscles were fatty in the highest degree. It gradually diminished upwards, and entirely disappeared four or five inches above the terminal neuroma.

We find that all authors (Larrey, Hutin,

&c.) lay stress upon the club-like termination of nerve-cords cut in amputation—a result differing from that obtained in experimental nerve-sections, where the central end of the divided nerve is found to retain nearly its normal size to the point of cicatrization.

In concurrence with M. Hutin, we ought to state that this protuberance is not constant. In our examinations it was wanting twice in amputations of the thigh, twice in the leg, once in the arm; and this, too, sufficiently long—five years or more—after the operations.

In all our other cases the nerves have presented these little tumors; variable in development, yet always in proportion to the size of the nerve-trunk. Eight times, according to our records, they were not remarkable; sixteen times, they were voluminous. We shall see presently whether it is possible to explain these variations.

Four times we have met with many such tumors developed along the course of the same nerve near its extremity; once on the tibial saphena, once on the external popliteal sciatic, and twice on the median; without anything to explain the peculiarity.

In general, the protuberance is, as it were, a continuation of the nerve on which it is developed; sometimes, however, it seems to be merely in apposition.

Each nerve appears to have its special and very distinct neuroma. This should be so, necessarily, when their extremities are apart from each other. But the same condition is found also when nerve-trunks are divided at a point where they are brought quite together, as in the axilla, for example. Besides, it is not astonishing that all such neuromata, naturally in contact, should, though distinct, be englobed at their inferior portion in a common fibrous mass connected with the cicatrix. The fibrous bundles of hypertrophied neurilemma adhere, interlace, and form this common portion of the protuberance.

In a single case of disarticulation of the shoulder, we found the extremities of the nerves so lost in the common mass that it was impossible to separate them or to distinguish their particular bulbs.

These protuberances generally had an elongated shape, in the direction of the trunks of the nerves. They varied greatly in size, even on the same nerves, under apparently identical circumstances. In eleven stumps of the thigh, the sciatic terminated seven times in quite large tumors, once in a small one, and three times without enlargement.

Seven patients used, in walking, the padded long peg (*cuissard*), having its principal point of support at the ischium, and being retained in place by a leather belt around the pelvis. In six of these the sciatic bulb was very large. In one there was no terminal nenroma.

The remaining four used crutches. Of these, one had a very large, one a very small, and two no apparent tumor of the sciatic. Almost all the operations dated far back—the most recent as far as 1854–55.

It would seem, then, that the apparatus used in walking had some influence in the production of these swellings; how much we shall soon see, and how it may be understood and explained.

The position of these tumors varied with that of the nerves on which they were situated, and they were greatly modified by their connections with the neighboring parts. When the nerve was in the midst of the celluloso-adipose tissue, loose in surrounding parts, as the sciatic, the axillary plexus, &c., we found the neuromata free also in the fatty mass, and attached only to the cicatrix by the lower extremity. When, on the contrary, the nerves were fixed at the point of division, as, for instance, the radial in the humeral groove, and by external intermuscular aponeurosis, or the external popliteal sciatic at the neck of the fibula, then the terminal protuberance was often found englobed in the fibrous cicatricial tissue, and at times inseparable from it.

These tumors presented to the naked eye a smooth, pearl-white surface, and elastic consistence. Free throughout most of their extent, they were almost always attached to the cicatrix by fibrous prolongations from their inferior extremities. Once only have we found the tumor completely free, without any connection with the fibrous tissue.

So great was their elasticity that it was difficult to cut them with scissors, or even with the scalpel. They presented a rosy-white, cut surface, with yellowish or at times still whiter and glaring patches at the centre and borders, or over the mass. In other respects these tumors were so variable that it is impossible to give a general description applicable to all. Nevertheless two portions could ordinarily be made out:—1, the exterior envelope, the continuation and manifest expansion of the hypertrophied neurilemma, which could be traced onward even into the fibrous cord attached to the cicatrix; 2, the central portion, which appeared to be rather the ex-

pansion of the nerve itself and of its tissue more or less modified.

We have said that the neurilemma spread out disunited bundles over the tumor, to form its external layer. Farther on, these bundles again approached each other, and condensed to form a simple fibrinous cord, which disappeared in the common fibrous tissue. Very rarely, these bundles continued, as it were isolated, even to their union with the cicatrix. But we have never met with the nervous fibrils which Larrey regarded as the conductors of animal electricity, and which M. Hutin has sometimes also observed.

Are these nerve-bulbs, which Cruveilhier described under the name of *traumatic neuromata*, in reality tumors of such a nature? Are they true nerve-tubes in their structure, or simply, as Legouest and A. Guérin thought, the result of hypertrophy of the connective tissue? Let us admit in the first place that in external characteristics, form, color, aspect, consistence, &c., these tumors greatly resembled common neuromata. But they differed from the latter decidedly in the symptoms produced. Spontaneous, sharp, and sometimes insupportable pains are constant attendants on pathological neuromata. In stumps, on the contrary, so far as we have been able to observe them, such pains are rare compared with the frequency of traumatic neuromata. But the histological structure is the same in both, and this settles the question. Microscopic examinations which we practised in almost all these cases, and which MM. Pautet and Villenin kindly repeated, enable us to affirm in all of these tumors the presence of true nerve-tubes.

Two elements concurred to form these bulbs—the compact fibres of connective tissue, and the bundles of nerve-fibres. On the surface of the exterior appeared only fibrous tissue, arising from the hypertrophied neurilemma which enveloped the tumor. The internal part, or the tumor properly so-called, was formed of very dense connective tissue, in which meandered bundles of nerve-fibres, more or less abundant, and more or less in apposition. Infrequent at the periphery, these nerve-bundles became so numerous in the central tract as to suggest a local development of nerve-fibres.

These tumors were, then, true neuromata, as Cruveilhier and Hutin considered them.

We have never seen nerve-fibres pass the limits of the tumor. The ligamentous cords and the loops which attached it to the common fibrous tissue were exclusively formed of bundles of connective tissue, re-united in

one instance, isolated and distinct in another. Even when there was no terminal bulb, the fibrous cord, almost uniformly present, was never composed of anything but connective tissue.

[To be continued.]

## AN AMUSING CHAPTER IN THE NOMENCLATURE OF SKIN DISEASES.

By JAMES C. WHITE, M.D.

No writer has done so much to increase the unfortunate confusion which exists in connection with the nomenclature of cutaneous diseases as Mr. Wilson. For a long time and until a recent period looked upon as the leader in this department of medicine in England and this country, he has never let slip the opportunity of introducing new and of altering old names in his writings. In his latest editions and in the numerous articles published in his *Journal of Cutaneous Medicine*, many of which are the merest twaddle, this propensity to invent long Greek titles, or to hunt up others forgotten for centuries and never used with any definite meaning, amounts almost to a mania. Among the most amusing of these exhibitions, and a fair illustration of his whimsical mutability, is that afforded by the list of names adopted by him from time to time in connection with Psoriasis.

Up to the 4th edition of his work he had called this affection *Lepra*, applying the former, its proper title, to a variety of chronic eczema. In the preface to his 5th edition, published in 1863, and written immediately after an interview with Professor Hebra "amidst the academic groves of Richmond Hill," we find the following change announced:—

"To return to *Hebra*. The term *Lepra*—*der Aussatz* in German—signifies the eruption, the great eruption. It is synonymous with Leprosy, the leprosy, the ancient leprosy, that which has since been called elephantiasis. Therefore let us bestow the term *lepra* where it rightfully belongs, or reject it altogether. The trivial affection which we at present call *lepra* has no single point of comparison with leprosy. We cannot but admit the truth of this argument, and we cannot, also, but recognize in an instant the monstrous absurdity of calling a comparatively insignificant disease by so portentous a name.

"Now, *Hebra* cuts the Gordian knot. Eczema he calls *eczema*; *lepra*, *lepra*; and that very common affection which we at present term *lepra*, he calls *psoriasis*. The

change is simple, the reasons for it important. We cannot do better than adopt it. Moreover, it suits the *spirit of the British bull-dog* to call things by their proper names, and we are too noble in our nature not to recognize and value the intellect of our foreign brethren. The great International Exhibition of 1862 will not have existed in vain, if it have accomplished no more than to enable us to give the proper name to a very common and troublesome disease."

Considering the reputation for tenacity of the canine species here mentioned, it might be presumed that this matter of title was definitely settled, but in the "Student's Book of Cutaneous Medicine," published in 1864, the "intoxication" produced by the "fascinations of his agreeable friend" (Prof. H.), seems to have subsided, for Richmond Hill is ignored, the term Psoriasis being still retained for this form of chronic eczema, while his old Lepra is called Alphos.

In April, 1868, this Gordian knot appears to be still uncut, and a positive reaction has taken place in the temper of the British bull-dog, for in an article on this affection, no longer Alphos but Lepra again, published in the Journal of Cutaneous Medicine at that time, we find the following recantation: "Nothing can be more outrageous than the blunder of calling Lepra vulgaris, Psoriasis: happily it is a foreign blunder; but we trust that there are few amongst us who are so lost to the proper estimation of nationality as to submit blindfold to the foreign yoke. We have no objection to accept the truth at the hands of our foreign brethren, but once and for all we reject their falsehood; and we have a proper disdain for the spirit of *gobe-moucheism*, which is at all times ready to gulp down "omne ignotum pro magnifico."

Later in the same year (October) he calls Psoriasis, Lepra Alphos; and in January, 1869, another alteration is introduced, and the title Lepra græcorum is adopted. In this latter article, a review of Hebra's work, he again says "it would be a serious mistake to confer on Lepra so unsuitable a designation as that of Psoriasis, as is proposed by our Austrian colleague. We trust that our countrymen will agree with us in our objection, and resist an attempt at the alteration of our nomenclature, which is pressed upon us inconsiderately, and with an authority which we think it absolutely necessary to resist." To this a writer in the *Edinburgh Medical Journal* of March, if we mistake not, the well-known author of the best works on skin diseases published in Great Britain, replies:—"And but small

excitement do we feel in the approaching contest which Mr. Wilson announces as about to take place between himself, a self-elected champion of Britain, and Hebra, as the supporter of the honor of Germany; notwithstanding the flourish of trumpets with which Mr. Wilson accepts the fancied challenge, and calls upon all interested to form a ring, and be judges of the fairness of the strategy. For it is just possible that the personal appearance of his German opponent in the field may once again be sufficient for victory, and enable him to return to his country singing the exulting psalm of *veni, vidi, vici*."

What change of title the next quarterly issue of his Journal will bring with it, time will show.

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## Hospital Reports.

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### BOSTON CITY HOSPITAL.

Reported by FRANK W. DRAPER, M.D., House Surgeon.

*Aneurism of the Innominate Artery.* (Service of Dr. CHEEVER.)—Fourteen weeks before his entrance to the Hospital, the patient, a strong, well-built, perfectly healthy laboring man, aged 38 years, first noticed pain between the scapulæ, with continuous cough. The symptoms were exacerbated by unusual exertion, and after three weeks he was admitted to the Mass. General Hospital to be treated for his cough. Seven weeks of treatment in great measure relieved this symptom. At the time of his discharge, nothing abnormal had been noticed about the heart or the adjacent arteries. Meanwhile the pain in the back continued, and a sensation of cold in the shoulders and down the arm, and of numbness in the right arm, were superadded.

Very soon after his discharge from the Hospital, and four weeks before his entrance to the City Hospital, his attention was first called to a pulsating tumor near the upper border of the sternum and a little to the right of the median line. The cough recurred, and exertion induced various uncomfortable sensations, referred to the shoulder, the arm and the seat of the tumor, and three weeks before he appeared at the City Hospital, the tumor had so far developed as to press on the recurrent laryngeal nerve sufficiently to cause hoarseness.

He entered the Hospital with the following appearances and symptoms. On exa-

mination, the right side of the neck was observed to be markedly enlarged. The sterno-mastoid muscle was thrown outward. The general aspect of the patient tended toward lividity. Just within the right sterno-clavicular articulation could be felt a pulsating tumor, which rose above the articulation and presented a regularly ovoid outline, its apparent size being that of a goose-egg. The pulsations were strong, and the sac appeared thin and superficial. The impulse was transmitted in a marked degree to the adjacent regions. The right external carotid artery could hardly be felt, and it was doubtful whether it was determined at all; the left pulsated normally. There was no perceptible difference in the pulsation of the two radial arteries. Auscultation discovered nothing abnormal in the cardiac sounds or in the aorta. There was a well-marked bruit in the tumor. The patient was harassed by a cough, and there were abundant moist rales in both chests. The hoarseness was a very marked symptom, and was accompanied by wheezy, croupy cough, like that after tracheotomy.

The general condition of the patient had not suffered materially. The appetite was good; pulse 96, regular.

During the week following his entrance all the symptoms were aggravated, and the physical appearances became daily more grave. A consultation of the surgeons determined the tumor to be an aneurism of the innominate artery, and that the question of operative interference should be left to the decision of the patient himself.

The decision of the patient being in favor of an operation, he was etherized in the recumbent position, the process being conducted slowly and with difficulty, on account of the increasing dyspnoea. The lividity, which at the outset was considerable, was much increased. Etherization occurred after twenty minutes, and  $\frac{3}{4}$  viij. of ether were used. When the patient was placed on the operating table he was breathing very laboriously, and the face had assumed a dark-blue aspect. The ether was suspended and not resumed, and there was subsequently, until the end, no reaction, the patient continuing in a comatose state, breathing heavily and at times with the greatest difficulty.

The operation was with a view to the ligation of the right common carotid artery and the right subclavian. The first incision was made for the tying of the former vessel, in the apex of the superior carotid triangle. From the first cut, the venous

hæmorrhage was excessive, welling up in the wound in spite of vigorous sponging, each new cut causing fresh bleeding. The operation was conducted by feeling alone. The edge of the sterno-mastoid was reached and lifted, but the finger failed to detect any pulsation. The attempt to ligate here was abandoned for the time being, as it was hoped that after the subclavian was tied pulsation might be evident in the carotid.

The incision was next made for the ligation of the subclavian in its third portion. The same difficulty was experienced with the profuse venous bleeding as before. The blood was now fully carbonized, and welled up in a continuous inky stream. No landmarks were seen, and the operation was carried on by careful picking with the director. The artery was reached and held under the finger. The subclavian aneurism needle was passed from before backwards and below upwards, and as it emerged from under the artery a smart gush of venous blood filled the wound, at once obscuring everything and causing the patient to gasp, and the pulse to fall so low that it could not be felt. Stimulation caused partial reaction.

Efforts were now directed towards securing the subclavian vein, which had probably been ruptured through its thinned and dilated wall, by the passage of the needle, close to its junction with the innominate. The wound was enlarged in all directions; the sterno-mastoid was cut and reflected, and the incision carried on until the aneurismal sac was exposed, and as much room gained as possible with safety. A section of the clavicle was made with a Hey's saw, and a portion of the middle third, an inch and a half long, removed.

Meanwhile the patient's condition was becoming increasingly alarming. The dyspnoea had developed to the gasping respiration of the moribund state; at times there was complete suspension of both pulse and respiration. The blood was of the color of prune-juice. The face was dark blue. There was no consciousness. The pupils were partially dilated. The extremities were cold.

Further attempts were now desisted from, as the patient was plainly *in articulo mortis*. The wound was plugged, and warmth and stimulants were applied. Death occurred two hours subsequently.

*Post-mortem Appearances.*—The heart, arch of the aorta and adjacent vessels, with the aneurismal sac, were hastily removed through the wound in the neck. The heart was healthy, and the arch of the aorta and







the left carotid and subclavian contained nothing abnormal. The aneurismal sac was as large as an orange, and was confined to the innominate artery; its cavity contained layers of firm and of flaky fibrin, but the contents were chiefly blood. The openings into the aorta and the carotid and subclavian were normal. The vertebral artery was plugged with a firm clot from its orifice as far up as the section reached (two inches). The trachea had been pushed to the left side, and was compressed laterally, so that it had assumed a triangular shape, its calibre being considerably lessened. The inner surface of the manubrium and of the adjacent inner eighth of the clavicle were eroded and roughened. The lesions of the venous trunks could not be determined, on account of the necessary haste in the removal of the specimen. Neither was the carotid dissected up high enough to determine the fact of its occlusion.

The condition of the sac, its being wholly confined to the innominate, and the plugging of some of the trunks issuing from it, render it probable that an early operation by simultaneous distal ligature of the subclavian and carotid arteries might have so far suspended the circulation in the sac as to have led to a cure.

Death was due to asphyxia, and not to hæmorrhage. The quantity of blood lost was moderate, and wholly venous. It ought rather to have relieved the venous congestion of the brain. When we reflect upon the interruption to the aëration and circulation of the venous blood, we need not be surprised at the patient's condition and death. The trachea was compressed, and the recurrent nerve so stretched that one half the larynx was paralyzed. At the same time, the vertebral artery was plugged, and the carotid diminished and probably occluded. The two great return trunks, the venæ innominatæ, passed between the aneurism and the sternum to form the superior vena cava, and were compressed by every pulsation in the sac, thus favoring venous congestion of the brain, and also dilating the jugulars and subclavian vein so enormously as to lead to great capillary venous hæmorrhage, and to rupture of the subclavian vein.

We are informed by the official accounts, which have just been published, that during the last twelve months the number of horses slain in Paris amounts to 2,400; five per cent. have been employed in making sausages, &c.

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## Bibliographical Notices.

*A Conspectus of the Medical Sciences: comprising Manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Obstetrics. For the use of Students.* By HENRY HARTSHORNE, A.M., M.D., &c. &c. With 310 Illustrations. Philadelphia: Henry C. Lea. 1869. 12mo. Pp. 1002.

This book seems to us hardly worthy of its author. To the "student" it may afford help in "cramming" for an examination. Great care is said to have been taken to render the book *throughout* accurate. Perhaps the attempt has succeeded.

D. F. L.

## Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 6, 1869.

### TRICHINA SPIRALIS.

WE presume that no apology on our part is needed for devoting a large space here to giving as an extract from the *Medical Record* the following entire article of Professor John C. Dalton on *Trichina Spiralis*. If the motto *multum in parvo* were ever applicable, it is merited by this monograph.

We have to express our great indebtedness to Dr. Dalton for his good offices in endorsing over to Messrs. Wm. Wood & Co.—the publishers of the *Record*—our solicitations for a supply of the excellent plates which accompany the monograph; and to those gentlemen for their liberality in furnishing us the plates at cost. The illustrations are steel engravings, photographed from original drawings made by Dr. Dalton.

*Trichina Spiralis: A Lecture Delivered at the College of Physicians and Surgeons, New York, Feb. 20, 1869.* By JOHN C. DALTON, M.D., Professor of Physiology and Microscopic Anatomy.

GENTLEMEN:—The subject of Trichinosis, to which our attention will be directed to-day, is remarkably interesting in three points of view. First of all, it is a disease of extreme importance with regard to its possible frequency, the fatality which it sometimes manifests, and the ease with which,

at any time, it may show itself in a community where it has been previously unknown; at the same time it is a preventable disease; and in the third place, it is especially interesting as an instance of a malady which has been discovered, so to speak, suddenly, within a comparatively short period, although undoubtedly it has existed unrecognized from time immemorial.

Trichinosis, as you are all now aware, is a disease produced by the infection of the muscular system by a minute parasite, which has received the name of *trichina spiralis*. The existence of trichina spiralis in the muscles of the human subject, has been known for over thirty-five years. As early as 1832, little bodies were discovered in human muscle, which upon examination were found to consist of ovoid sacs, and a few years later it was found that each one of these sacs contained a minute round worm coiled spirally upon itself. This discovery was first made in the muscles of a hospital patient. In that case it was found that the trichinae were exceedingly numerous and scattered throughout the body, in the substance of the voluntary muscles. Since that time they have been noticed, in many instances, in persons who have died from accidental causes, from pneumonia, from phthisis, and various other affections: from diseases, in a word, which would appear to be entirely disconnected with the existence of the parasites; so that notwithstanding the great abundance of the parasites, medical men were forced to the conclusion that they exerted no deleterious influences whatever upon the subjects inhabited by them.

I have here a specimen which I took myself from the human subject, some ten years ago. It is the rectus femoris muscle, and, like the other voluntary muscles in this case, it is full of these parasites. You will see here the regular appearance of the trichinae as they are usually seen, and as they were exclusively known previous to about the year 1855. Look at this muscle very carefully; you will find, just visible to the naked eye, minute ovoid bodies situated between the muscular fibres, having an opaque envelope and a transparent, but apparently dark-colored, centre. On dissecting out these bodies with needles, it is found, as I have said, that they consist of an ovoid sac, and inside this sac the worm lies, spirally coiled. This is the old encysted trichina, such as you see in this drawing. (*Vide* Plate, Fig. 1.)

Between the fibres of the muscle, and lying parallel with them, is the ovoid sac, somewhat pointed and yet slightly rounded

at its two ends, and swollen in the middle, where the worm is coiled up. Now the trichina is coiled in such a manner inside the sac, as to make about two turns and a half upon itself. One extremity of the worm is blunt and rounded, the other is more pointed, and the two lie so near each other that half a turn more would bring them together. These bodies, although so minute, are yet visible to the naked eye on close examination in such specimens as this; because, as you readily find under the microscope, they are partly solidified by a calcareous deposit in the cavity of the sac. This deposit is of a gritty and almost crystalline texture, brittle, breaking upon firm pressure, and is composed, probably, of phosphate of lime, slowly deposited, so as to give to the extremities of the sac an opaque appearance and a very firm consistency.

This is the condition in which the trichina presented itself in all specimens brought to the observation of medical men, for some twenty-five years after its first discovery. They were cases of old, encysted trichinae. All that was known about them was that they were encysted, that they did not exhibit any distinct sexual apparatus, and they did not appear to produce any distinct symptoms by their presence in the human organism.

But between the years 1850 and 1860, certain experimenters in Germany undertook to examine the natural history of this parasite more closely. They did so by administering portions of muscle infected with it to the lower animals; and they found—especially Leuckart, who was the most successful in these investigations—that the worms, apparently so insignificant in size, and so incomplete in development so long as retained in the muscular system, become further developed when introduced into the intestine of another animal. After a short time the sexual apparatus appears, copulation takes place, the female produces living young, and these young penetrate finally into the muscular tissue of the second animal, and there domicile themselves for an indefinite time. In this way somewhat more definite ideas were acquired with regard to the natural history of the worm, as found in the inferior animals. By a continuation of these experiments, it was found that this infection of the muscular system with trichina may show itself in the pig, the cat, the rat, the mouse, the rabbit, and, I believe, one or two other species of the inferior animals.

So far, nothing more had been learned

with regard to trichinosis as constituting a disease in the human subject. The new era in this respect opened with the year 1860. At that time an epidemic of trichinosis occurred in Germany. The members of a family living in Dresden were taken sick with symptoms similar to those of acute rheumatism, mingled with those of typhoid fever. One of them, a servant-girl, died, and on examination it was found that her muscles were filled with trichinae. The attending physician and Professor Virchow tried the experiment of administering the trichinous muscles to this rabbit, and found that the rabbit became infected with the parasite, and died in about four weeks' time. The infected tissues of a rabbit were administered to a second, which became infected in the same manner, and died, like the first, in about four weeks. Finally, a third rabbit was fed with the flesh of the second, with a similar result. These experiments show that the disease, as it exists in the human subject, may be transmitted to the lower animals; that it may be transmitted indefinitely from one animal to another, the parasites passing alternately from the intestines to the muscular system, and again from the muscular system to the intestines. These are the general outlines of the origin and course of the disease known as trichinosis.

Now let us see what are the details of the anatomical structure and physiological development of the worm itself.

I have said that, as you examine the trichinae in those cases where they have existed in the muscles for an indefinite period, where they have become encysted, and the cavity of the cyst has been invaded by calcareous deposit, it is not easy to make out their anatomical structure. But in cases where the disease is recent, and particularly where it can be traced to the recent use of trichinous flesh as food, the anatomy of the worm can be made out with more distinctness. Such a case happened in this city about five years ago. Some sailors, on board ship, were taken sick while in port with symptoms resembling those noticed in the Dresden family, similar to those of typhoid fever and acute rheumatism combined. It was found that the disease originated, in their cases, from eating raw pork or bacon. About the same time other cases of the disease became developed in persons living permanently in the city; and in these cases the difficulty could be traced to the use of ham imperfectly cooked.

A portion of this ham came into my possession, and in examining it, I found not

only that the meat was trichinous, but also that the parasites were in a decidedly different condition from that which they exhibit in cases of long standing. The first peculiarity was that the cysts in which the worms were contained, instead of having definite and rounded ends, gradually tapered off into long and slender prolongations, the extremities of which could not be reached, being entangled in an intricate manner with the muscular fibres. In these drawings you see represented the cysts containing the trichinae, as found in the ham. (Fig. 2.) In this case the cyst is evidently a hollow, fusiform tube, consisting of a transparent and structureless, but well-developed, membrane, containing the worm coiled up, as you see. From the two extremities of this fusiform cyst run off the prolongations. It is very important to ascertain exactly the structure of these prolongations. It is evident that they are tubular, and that their cavity is nearly continuous with that of the sac containing the worm. Not quite so, however, for it can be seen that a membranous partition runs across where the prolongations begin, so that the worm is enclosed in a distinct cavity; and that the prolongations are tubes of much smaller calibre, but were apparently at some previous time connected with the central cavity. Now this central cavity contains a transparent fluid; the worm is, therefore, lying free in the interior of the sac, not connected with its membranous walls; this can be demonstrated by breaking open the sac by a slight pressure between the glass plates. It ruptures, and discharges the worm, which escapes in such a manner as to show that it lay before perfectly free within the cavity of the sac. (Fig. 3.) The worm still remains coiled up, after its escape, and you will usually find much difficulty in uncoiling it sufficiently to examine its structure. No operation in microscopic anatomy requires more patience than this; for its firm folds must be unwound without rupturing any of its parts, in such a manner as to give you a fair view from one extremity to the other. (Fig. 4.) This done, the trichina, at this stage of development, is found to be a worm one twenty-eighth of an inch in length; its anterior extremity or head is tapering and pointed; the body very gradually enlarges as you pass from the anterior extremity towards the middle, and about the middle acquires its greatest diameter, which it retains throughout the rest of its extent, terminating posteriorly in a round, blunted extremity. The alimentary canal runs longi-

indinally throughout the whole length of the worm, there being a mouth at the anterior or pointed extremity, and an anus at the posterior or rounded end. About the junction of the middle with the posterior third of the parasite, the calibre of the alimentary canal suddenly contracts, then enlarges again, and afterward remains reduced to about one-third its original size. The only other organ visible at this time, is one which occupies, together with the alimentary canal, the posterior third of the worm; an organ apparently tubular in character, rounded at either end, and filled with rather large and tolerably well-defined cellular bodies. This evidently is the sexual apparatus, such as it exists at this time.

The characters which I have given are sufficient to define the encysted trichina as taken from the muscles. Suppose now a portion of muscular flesh, filled with trichinae in this condition, be taken as food by the human subject or administered to one of the lower animals. On arriving in the small intestine, the worms are found to be perfectly free, for the muscular tissues in which they were imbedded, as well as the cysts in which they were contained, are digested in the stomach, so that within twenty-four or forty-eight hours you find an abundance of free trichinae in the cavity of the duodenum. At once they begin to increase in size, so much so that very soon, usually by the fourth or fifth day, they have become three or four times as large as before. They have now arrived at the adult condition. At the same time the sexual apparatus, before so incomplete, has become perfect, and the copulation of the sexes takes place. I have myself, on several occasions, found in the intestine of the rabbit the two sexes in copulation, the male fastened upon the female at the orifice of the generative apparatus. The eggs having been impregnated, as the animal is viviparous, the female soon becomes full of the young brood.

In this drawing you see these parts as I have just described them. (Fig. 5.) Instead of the intestine now taking up the whole of the anterior two-thirds of the body, and a great part of the posterior third, you find that the sexual apparatus is by far the most prominent organ in the interior of the body of the female; and as soon as the young have arrived at the period of development here represented, they begin to move forward to the terminal duct of the generative apparatus. This can now be seen very clearly, running from the ovary forward to a point quite near the anterior extremity of the worm. The young are

very numerous. I do not know that it has been calculated how many a single female is capable of producing, but they are probably very numerous. The young, discharged in this way into the cavity of the small intestine, begin to penetrate through its mucous membrane, by a boring process, passing undoubtedly through the entire thickness of the intestinal walls. This causes a great deal of irritation, which is the first symptom of trichinosis. It is usually sufficient to produce a considerable degree of pain and not unfrequently a smart attack of diarrhoea.

After passing through the walls of the intestine, the worms disperse in every direction, and from that time you begin to find them in the muscular tissue throughout the body. There they domicile themselves, and, within a fortnight after the symptoms have begun to manifest themselves in the human subject, you will find them almost everywhere, scattered throughout the voluntary muscles. They are still very small, having increased but little in size during their transit, so that when they first arrive in the muscular tissue they are not more than about 1-140th or 1-120th of an inch in length. They soon, however, become encysted, and then increase very considerably in size. At first, however, they are not enclosed in distinct sacs, but are found contained in the interior of long tubes.

We have already seen that, although the encysted trichina is contained in a sac or cavity of its own, this sac is often connected with prolongations running out from each extremity; and in the human muscle, within the first fortnight of infection, the young worms are found contained in swollen tubes. This is the condition of the worm as it was found in the muscles of the human subject on the thirteenth day of illness, in a case which I had the opportunity of examining. The worm, you see, is not free, but is contained in the interior of a tube, swollen or fusiform at the point where the worm lies partly coiled up. The worm is not stationary at this time, but by gentle pressure can be made to move from one end to the other of the swollen portion of the tube. By about the end of the first fortnight its coils assume a considerable degree of regularity, and the worm then reaches that condition which has given it its name of *trichina spiralis*.

We have now described the worm as domiciled in the muscular tissue. The next question is, how did it get there, and what is the nature of this tube which it now inhabits, and which is hereafter to become its

cyst? These are points with regard to which some doubt still remains. Most of the German observers are agreed that this tube is a muscular fibre; they believe the worm passes from the intestine to the remotest regions of the body by boring its way through the intermuscular cellular substance; and that if examined on its first arrival there, it is perfectly free; that it then penetrates the substance of the muscular fibre, producing atrophy and degeneration of its substance, until the fibre becomes converted into the tube, with prolongations which I have described. On the other hand, it is possible that the worm, instead of working its way through the intermuscular cellular tissue, may also be transported by the circulation; for if it can bore through the walls of the intestine, it can, of course, also penetrate the bloodvessels, and it might thus finally reach the left side of the heart, and be sent with the current of the circulation to every part of the body. However, it is certain that the young trichinæ arrive at the muscular tissue, either by working their way through the intervening cellular tissue or by distribution by the bloodvessels. They very soon present themselves in the interior of these swollen tubes, which may be either capillary vessels that have become plugged, by coagulation of the blood, or by deposit of the exuded material excited by the presence of the worm; or may be muscular fibres that have undergone degeneration and atrophy from its presence. Soon the tube containing the parasite suffers a further alteration. An exudation takes place around the worm, so that that part of the tube containing it is shut off from the rest; and the remainder of the tube becomes atrophied into slender, tapering prolongations. After some years these also entirely disappear, and you see only an ovoid sac without prolongations; and finally you may have the cavity of the cyst invaded by a calcareous deposit, as I have already described—the last peculiarity of the degenerated cyst.

Now all these changes in the history of the trichina have been seen in the human subject: the development of the young in the body of the female; their discharge from the mother's body into the intestine; their penetration of the walls of the intestine and dispersion to the muscular tissue throughout the body; their domiciliation in the interior of the tubular cavities, and the change of the tubular cavities into ovoid cysts; the calcification of these cysts; and the quiescent and dormant condition of the worms as the result.

Now to what symptoms does this accident give rise? As I have already said, within the first ten days there is irritation of the intestines. In some instances this irritation is very great; and the greater it is, the more favorable the prognosis, as a general rule. After eating trichinous flesh, the patient generally begins to suffer within the first week, sometimes within two days. Now, if the irritation of the intestine be extreme, so that frequent and abundant evacuations are produced, the chances are very great that all, or nearly all, of the parasites will be discharged from the intestine. If so, the patient is safe. But if the irritation be not very marked, time is allowed for the young trichinæ to penetrate the intestinal walls, and enter the muscular tissue—from the end of the first to the end of the second week. This is the most dangerous period, the second stage of the disease. There is general pain and soreness, and œdematous swelling throughout the muscular system. At the same time, typhoid symptoms manifest themselves; the patient is debilitated, his pulse rapid, skin hot, tongue and lips dry, and his general appearance closely resembles that of a patient with typhoid fever.

The passage of the worms into the muscular tissue, and the changes taking place there, are very apt to produce symptoms which result in the patient's death at or before the end of the fourth week. By that time the worms have become completely encysted, and after this the symptoms of irritation begin to disappear. The muscular system becomes habituated, as it were, to the presence of the parasite; and after a while the symptoms all subside; the patient can move his limbs as before, and then considers himself as entirely recovered.

How long may the worms remain in this quiescent condition in the interior of the muscular system. In 1863, Prof. Langenbeck, of Berlin, was operating upon a patient for a tumor of the neck, situated upon the surface of the sterno-mastoid muscle; in dissecting it off, the fibres of this muscle were disclosed, and it was noticed that their surface was covered with minute white specks. These attracted so much attention that a portion was excised and submitted to the microscope, when the specks were found to be encysted trichinæ. After the patient's recovery, minute inquiries were made to ascertain at what time he had become infected. The result was that no such attack could be traced to a period less remote than eighteen years before. At

that time, viz., in 1845, the patient, with several associates, was serving upon a committee of inspection of the public schools. After the inspection in a certain district, the committee partook at the village inn of a lunch, consisting, in part, of ham. Very soon after, all the members of the committee were taken sick with symptoms similar to those we now know to be attributable to trichinosis. Two of them died, and the symptoms of poisoning were so marked that the innkeeper was arrested and held under this charge for a considerable time. Although, finally, the circumstances were not found sufficient for his conviction of the crime, yet they were considered as so much against him, and the prejudices of the community were so excited in consequence, that he was obliged at last to leave the place. On going over all the history of the case, so far as it could be ascertained at that time, it left an undoubted impression on the minds of the medical men who made the investigation, that at the time before mentioned, viz., in 1845, the members of the committee were infected with trichinae from the ham used for their lunch; that two of them had died in consequence; and that Prof. Langenbeck's patient had recovered, and the worms remained encysted for eighteen years afterwards. How much longer they may thus remain I do not know, but I see no reason why they should not last for the remainder of the patient's life. They produce in this condition no interference with the health, and hardly seem to interfere even with the vigor of the muscles.

This was the condition in which the trichinae were nearly always found, prior to the year 1850, and from this fact it was supposed that the trichina was a harmless parasite. Such are the chief circumstances connected with the physiological history of the worm.

There still remains one question of a very important nature—How great is the liability of the community at the present time to be infected, and what measures can be taken to prevent it?

The pig seems to be the animal naturally the most liable to trichinosis. He is certainly more liable to this disease than any other animal used for food, neither the sheep nor the ox being subject to it. It has been found in this country, by investigations in Chicago in 1866, that of all the pigs brought to market in that city, one in fifty is infected with trichina. This shows that we are all in danger of becoming infected by the use of pork, unless measures are taken, in preparing the meat, to

destroy the vitality of the worms. Smoking and salting will not do this effectually. Only thorough cooking is to be relied on as a safeguard. It is remarkable that most, if not all of the cases of trichinosis in this country, thus far, have occurred among the Germans. This is because they have the habit, not otherwise common here, of eating ham, sausages, and even sometimes fresh pork, nearly or quite in the uncooked state. To kill the worms the ham must not only be salted and smoked, it must be cooked, and cooked thoroughly. Now, if you bear in mind that one pig in fifty is infected with trichina, you will perhaps think many times before putting between your lips a piece of pork, or ham, or sausage in the raw state; you will be certain that it is cooked; and not only that, but thoroughly cooked. One of the worst cases of trichinosis that has come under my observation was caused by eating pork chops which were rare or slightly underdone. Now, these chops were probably well enough cooked on the outside; but on the inside they were red and juicy, and the danger was precisely the same as if the patient had taken the meat entirely raw. In order to destroy the vitality of the trichina, the meat should be subjected to a temperature of 212° F. Now, if you boil a ham for half an hour, or even an hour, you do not necessarily subject all parts of it to this temperature. In the central parts of the ham the temperature will not rise to that point unless the boiling has been long continued. I speak of this particularly, as it is a very important matter. A temperature of less than 160° F. does not destroy the trichina. As shown by direct experiment, therefore, a piece of trichinous meat, any part of which has not been raised to or above this point, is just as dangerous as if it were taken in the raw state.

These are the chief points of importance in regard to the trichina and trichinosis. The disease is fatal enough, frequent enough, and revolting enough to induce us to take all possible measures to prevent it, and I do not think anything is sufficient for this but a personal examination of every piece of pork, ham, bacon, or sausage used as food, to see that every part of it has been subjected to a thorough cooking process.

One other point still I should like to speak of. We have seen that the disease shows itself occasionally in the human subject, but very frequently in the pig. Now, how is it, under these circumstances, that the continuance of the species of *trichina spiralis* is provided for by nature? We



have here an animal that arrives at maturity in the intestine of the human subject. In that situation the female bears living young in consequence of the individual having eaten pork filled with the encysted and quiescent trichinae. So long as these remain encysted and quiescent in the pig's muscles, they remain practically undeveloped and practically sexless. This flesh is eaten by the human subject. In the intestines of the human subject the worms are set free, the females are impregnated and bear young, and these scatter themselves throughout the body. Now, when these young have, in their turn, in the human subject arrived at the period of quiescence, how are they ever to get back to the intestine of a living animal, and so become capable of continuing their species?

I presume that the mode by which the race is continued is this: Suppose we start with the pig infected with quiescent and sexless trichina. This pig is butchered. You know that butchering establishments are the abundant resort of rats, which feed upon the refuse scraps of meat, and of course these after a time become infected with trichina. The worms are developed in the intestine of the rat, and produce living young. These not only infect the muscular system of the rat, but they are also discharged with the feces. These feces become mingled with the food of the pig—an animal, as we know, not very fastidious with regard to his food, and consequently subject to several parasitic diseases—and thus the round of development of the trichina is completed. Again, its perpetuation is provided for by a similar round between the cat and the mouse. The mouse becomes infected by feeding upon refuse meat, and the cat by devouring the mouse or rat. We have, therefore, the natural history of the animal, embracing in each case two different phases, in one of which it undergoes an active development, in the interior of the intestine, while in the other it assumes the quiescent form, becoming encysted in the substance of the muscular system.

There are other points of considerable interest with regard to the rapidity with which the human subject may be infected, the great number of persons who may become infected by eating the product of a single slaughtered animal, and the degree of fatality attending the disease. Enough, however, is known to convince us that the affection is a very frequent one, and liable to be exceedingly fatal, or if not fatal, to produce prolonged and exhausting disease.

Much would be effected if all pork offered for sale in the market could be subjected to inspection, and this has been done in some parts of Germany; pork being liable to infection not only with trichina, but also with cysticercus, producing tapeworm in the human subject. Such inspection would undoubtedly prove very useful. Still it would not afford complete protection, unless carried out with an amount of detail which would in all probability prove practically unattainable. The only absolute protection, therefore, must be that exercised by the individual for himself. He must see that he never uses for food any kind or preparation of pork in any form not so thoroughly cooked as to destroy every possible vestige of parasitic life.

**AURICULAR HÆMATOMA OF THE INSANE.**—The *Gazette Hebdomadaire, &c.*, adds to a previous report of one of Prof. Brown-Séquard's communications to the Academy of Medicine, that that gentleman compared the *auricular hæmatoma of the insane* to the hæmorrhage into the tissues of the ear produced by his artificial lesions of the *corpora restiformia*.

**REPRODUCTION OF LOST MEMBERS.**—The same journal gives a note from M. Philippeaux, in which from certain new experiments he draws the conclusion that, as a general law, among vertebrate animals at least, an organ entirely removed can never be replaced—that when an organ is regenerated the basilar portion has not been removed.

**SUBCUTANEOUS MEDICATION FOR SYPHILIS.**—Dr. Max Van-Mons has reported in the Brussels Academy five cases of secondary syphilis, with indurated chancres, treated by the subcutaneous injection of calomel. Three of the cases received two or three injections each (quantity not stated) at intervals of about twelve days. At the time of writing, these were nearly or quite cured, after the lapse of 37, 20, 19 days respectively; and the remaining two cases, which had each received one injection, only eight days previously, were notably improved. If this discovery is verified, it will prove one of the most important ever made in regard to the treatment of syphilis.—*Wiener Med. Wochenschrift*, No. 24. D. F. L.

**REMOVAL OF URINARY CALCULI.**—Dr. Paul F. Eve has operated more than one hundred times for the removal of urinary calculi.—*N. Y. Medical Record*.

## Medical Miscellany.

**MIDDLESEX NORTH DISTRICT MEDICAL SOCIETY.**—At the annual meeting of this Society, held in Lowell, April 28th, the following officers were elected for the year ending April 27, 1870: Joel Spalding, of Lowell, *President*. Levi Howard, of Chelmsford, *Vice President*. John H. Gilman, of Lowell, *Secretary*. N. B. Edwards, of North Chelmsford, *Treasurer*. Franklin Nickerson, of Lowell, *Curator and Librarian*. John O. Green, of Lowell, *Commissioner of Trials*. *Standing Committee*.—George E. Pinkham of Lowell, Charles Dutton of Tyngsborough, Moses G. Parker of Lowell. *Councillors*.—Charles A. Savory of Lowell, John C. Bartlett of Chelmsford, Walter Burnham of Lowell, Joel Spalding of Lowell, Nathan Allen of Lowell, Francis C. Plunkett of Lowell. *Censors*.—Nathan Allen of Lowell, Charles A. Savory of Lowell, N. B. Edwards of North Chelmsford, Hanover Dickey of Lowell, Daniel P. Gage of Lowell.

*Delegates to the Convention of the American Medical Association*.—Geo. C. Osgood, George Munroe, David Coggin, Joseph H. Smith, Kirk H. Bancroft, W. H. Leighton.

Was Socrates poisoned by hemlock? Was he poisoned by anything? Was there ever any Socrates, any Homer, any Shakspeare? Well, we have got as far in these investigations as this. The scientific are doubting if hemlock is poisonous; but they do not know whether they mean by hemlock the thing referred to in the classic story. Alas! if boyhood has conned that Greek lesson for nought!

**ACADEMIE DE MEDECINE.**—The place in the Section of Surgical Pathology left vacant by the death of M. Velpeau, has been filled by the election of M. Verneuil.

Dr. H. H. A. BEACH has been appointed Assistant Demonstrator of Anatomy in the Medical School of Harvard University.

In his Tuesday's lecture, Dr. Richardson performed a somewhat remarkable experiment in confirmation of an observation originally made by John Hunter. Hunter observed that if fresh muscle be frozen, in the act of thawing muscular contraction will take place. Dr. Richardson has devised an experiment by which the fact may be audibly and visibly demonstrated. If a freshly denuded muscle be first frozen with ether spray and then immersed in a freezing mixture, it may afterwards be gradually thawed by being held horizontally by a piece of cord over water at 120°. If one end of the cord be made fast in the vessel holding the water and the other end be fastened to the trigger of a pistol, and the temperature of the muscle be then suddenly raised by placing a spirit lamp under the vessel containing the water, and heating it to 125°, the muscle contracts sufficiently quickly and forcibly to fire off the pistol.—*London Medical Times and Gazette*, April 10.

**DANGER OF GIVING STRONG DOSES OF CAMPHOR.**—A case illustrating the above has recently

been brought under the notice of the Société de Médecine et de Pharmacie de Grenoble. An enema consisting of five grammes of camphor dissolved in the yolk of an egg was given to a child three years of age suffering from typhoid fever. Symptoms of poisoning soon manifested themselves—convulsions, lividity of the countenance, stupor, arrest of the urinary secretions, &c. The employment of coffee sufficed to restore the child.—*N. Y. Medical Record*.

**THE DISCOVERY OF A MINUTE FOSSIL HORSE.**—Professor Marsh, of Yale College, has discovered in the tertiary deposits of Nebraska, the minutest fossil horse yet obtained. It is only two feet high, although full grown. This makes the seventeenth species of fossil horse discovered on this continent.—*Ibid*.

**DIABETES CURED BY PEROXIDE OF HYDROGEN.**—Mr. J. J. Bayfield (*British Medical Journal*) reports a case of diabetes cured by peroxide of hydrogen. He commenced with half-drachm doses of the ethereal essence of the peroxide, and gradually increased it to three drachms a day.—*Ibid*.

## MEDICAL DIARY OF THE WEEK.

**MONDAY, 9, A.M.,** Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

**TUESDAY, 9, A.M.,** City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

**WEDNESDAY, 10, A.M.,** Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

**THURSDAY, 9 A.M.,** Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

**FRIDAY, 9, A.M.,** City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

**SATURDAY, 10, A.M.,** Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—The following communications have been received:—Caoutchouc in Skin Diseases—Abuse of Charity Medicine—Review of Wells on the Eye—Review of Pamphlet by Dr. Gautillon—Charity Medicine.

N. B.—If any communication accepted after the date of those announced in last week's issue should be printed in advance of any of them, it will be because it happens to fill a gap in making up a number.

**PAMPHLETS RECEIVED.**—Surgical Cases. By David W. Cheever, M.D., Adjunct Professor of Clinical Surgery in Harvard University; Surgeon to the Boston City Hospital.

**DEATHS IN BOSTON** for the week ending Saturday noon, May 1st, 86. Males, 44—Females, 42.—Alcscs, 1—accident, 1—anemia, 1—apoplexy, 3—disease of the brain, 1—inflammation of the bowels, 1—bronchitis, 3—cancer, 3—consumption, 18—convulsions, 3—diabetes, 1—diarrhea, 1—diphtheria, 1—dropsy, 2—dropsy of the brain, 1—erysipelas, 1—scarlet fever, 12—typhoid fever, 2—infantile disease, 1—disease of the kidneys, 2—inflammation of the lungs, 9—marasmus, 3—old age, 5—paralysis, 3—premature birth, 1—puerperal disease, 2—rheumatism, 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 6—between 20 and 40 years, 21—between 40 and 60 years, 15—above 60 years, 12. Born in the United States, 60—Ireland, 20—other places, 6.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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## Original Communications.

### AN ENORMOUS MASS OF DISEASE, FORMED BY CANCEROUS DEGENERATION OF THE KIDNEY, IN AN INFANT.

By C. F. GEORGE, M.D., of Centerville, Mass.

On the 12th of January, I was called to see the patient, female, aged 17½ mos. Found her pale, considerably emaciated, irritable and restless; sleep disturbed; appetite variable; bowels constipated. Urine apparently natural as to color and quantity; no pain on passing it. In the left hypochondriac region was a tumor, extending from under the ribs downward and forward to within an inch and a half of the umbilicus, attached at its upper extremity and movable at its lower. It seemed about the size of a large goose-egg, was not painful on pressure, and there was no fluctuation. A little bulging of the side; none backward.

The previous history of the case was— whooping cough at three weeks of age; measles at one year; otherwise she was apparently as healthy a child as usual of that age. About the first of last November she was weaned, and from that time the mother dates the first symptoms of failure. These were mainly variable appetite, constipation, irritability and restlessness, with gradual loss of flesh. The mother first discovered the tumor on the 1st of January.

After I saw her, the appetite improved, the bowels became more regular, and she slept better; but still some irritability remained. January 24th, and during my absence, Dr. J. M. Smith was called. The tumor then extended to the umbilicus, and was larger laterally. About this time she had a slight febrile movement, and some difficulty in passing urine, which was scanty and high colored. This passed off in three or four days, and the child seemed about the same as before.

February 10th and 17th, Dr. Pincus saw the case. The child was pale and emaciated; appetite failing; bowels quite regular; urine natural (apparently); tumor in-

creased in size, not fluctuating, but slightly tender.

From this time the appetite continued to fail; bowels became a little constipated; irritability increased; patient restless, and at times seemed to suffer a little pain. Urine freely passed, and without difficulty. Tumor rapidly increased. About the first of March, slight fluctuation in the right side was discovered. Feet, legs and face became œdematous, though at no time was the swelling very great. Still pale (white) and losing flesh. After this she rapidly failed, and died March 12th, of exhaustion (seemingly), and without distress or pain.

On examination, the emaciation was extreme. Abdomen enormously distended; sides bulging out, and somewhat backward. Two or three ounces of fluid in the cavity; and the tumor occupied nearly the whole space, with some slight adhesions of the peritoneum, but not enough to indicate much inflammatory action. The tumor extended from under the left ribs to the brim of the pelvis. The liver, spleen and stomach were pushed upward; and the pancreas and transverse colon were quite firmly attached to the upper extremity of the mass. The descending colon was pushed forward and inward, so that it occupied the median line immediately under the anterior walls of the abdomen. The small intestine was crowded into the right iliac region. The mass was found to be the left kidney; it weighed 5 pounds and 15 ounces when first removed. The bowels were empty. The right kidney seemed natural, as also the liver and spleen. The lymphatic (mesenteric) glands were a little enlarged. On making an opening in the tumor, a considerable quantity of fluid escaped.

*Family History.*—Paternally, the whole family are more or less scrofulous. Maternally, family healthy; no constitutional disease, excepting a "traditional cancer" three generations back.

The diseased mass was carried by Dr. G. to Dr. Pincus, of Hyannis, who sent it to Dr. Jackson in an entire state and perfectly fresh, excepting the puncture made by Dr.

[WHOLE No. 2150.]

G. Dr. J. showed it to the Society for Medical Improvement, and he and Dr. Coolidge gave subsequently the following description:—

"The mass was of an oval form;  $8\frac{1}{4}$  inches in length,  $6\frac{1}{2}$  inches in width, and 5 inches in thickness; weight, 5 lbs.  $3\frac{1}{2}$  oz. Upon one surface there were the remains of the kidney, about two inches in extent; and, including this, was a somewhat defined, oval, superficial patch, about  $6\frac{1}{2}$  inches by  $2\frac{1}{2}$  inches in extent, and that strongly suggested the idea of a connection with the original outline of the organ. Around this patch the surface was lobulated, and radiated in appearance, but upon the opposite surface it was much more even. The irregularity was much more apparent after a fibrous envelop had been stripped off that was quite marked for the most part, and moderately adherent by a lax tissue, though less so to the patch above referred to than to some other parts. Towards the surface where the patch was, and throughout nearly one half of the whole mass, the structure was white, not vascular, had a pearly translucency, and was softer than foetal brain, with an appearance as if it were infiltrated with a ropy fluid. The remainder was much firmer, and evidently contained more or less connective tissue, the softer and firmer portions passing gradually into each other. This last was also stained by blood, and in some parts quite deeply, though no free clots were found. There was also a small serous cyst in this firmer portion. The portion of kidney above referred to was perfectly healthy in appearance; and, on incision, there was found, within, a well-marked pelvis that could be traced for three or four inches, and infundibula arising from it, with portions of the renal substance that had undergone more or less the cancerous transformation. There were also found in distant parts, but upon the surface of the mass only, several small, insulated remains of perfectly healthy renal substance, about three or four lines in diameter.

Under the microscope, the soft substance which constituted so large a part of the disease consisted of innumerable, roundish cells, not varying much in size or form. They had large nuclei, and were embedded in a soft, streaky, ropy mass. At the end of a week, the specimen not having been preserved in any way, the nuclei alone were visible; the substance of the cells having become undistinguishably fused with the mass in which they were."

## TEDIOUS LABOR; INCISION OF OS AND CERVIX UTERI.

By JOHN L. SULLIVAN, M.D., Malden.

Mrs. F. D., aged 25, primipara, well formed, muscular. Labor pains first felt on the evening of 10th inst. When examined, at 9, P.M., of the 11th inst., os was found too small to admit the point of the fore-finger; presentation probably cephalic; pains light, but regular, recurring at intervals of fifteen minutes; passages moist, cool; perinaeum relaxed.

12th, 9, A.M.—Pains all night, preventing sleep; os unchanged. During the day slight, bloody show; membranes ruptured; waters discharged.

11, P.M.—Os dilated so as barely to admit fore-finger; head presenting; pains every five minutes, and severer; patient fatigued and somewhat desponding. Opium (grs. iij.) administered.

13th, 9, A.M.—Slept "by snatches" during night; pains every three or five minutes; slight thirst; no appetite. Warm hip bath, enema per rectum, tartar emetic *ad nauseam*; warm vaginal douche proposed, but objected to.

10, P.M.—Pains increasing; head descending through pelvis, driving uterine neck before it; no farther dilatation; os very rigid. With difficulty, a No. 1 Barnes's dilator introduced and inflated. Pains very severe; dilator removed after an hour. Os dilated to about the size of half a dollar, still rigid; presentation readily diagnosed *r. o. c.* Largest sized dilator introduced, followed by very frequent and severe uterine contractions. Dilator removed in half an hour. Os two inches in diameter; edge like whip-cord.

14th, 1, A.M.—Dilator introduced and fully expanded. Pains violent and almost uninterrupted.

$1\frac{1}{2}$ , A.M.—Dilator removed. No permanent increase in dilatation of os, which seemed to contract like India-rubber on removal of dilator. Patient's condition still good; passages moist; tongue ditto; abdomen not tender; uterine contractions regular and quite forcible. Determined to leave the case to nature until symptoms of constitutional irritation should supervene, rendering further assistance indispensable to the safety of mother or child, or of both.

10, P.M.—No progress towards delivery. Os rigid and undilatable as ever; uterine neck swollen and edematous, pitting deeply on pressure; pains frequent, powerful and agonizing; passages dry and hot; abdomen tender on pressure; tongue dry and

burning; thirst urgent; pulse frequent and hard. One ounce of dark-looking urine drawn by catheter.

It was clear that the safety of mother and child depended upon speedy delivery, and that this could not be effected without assistance. Forceps or incision of the os uteri were the operative measures which suggested themselves. In view of the difficulty of drawing the head through the swollen and unyielding cervix, and the fatal consequences that might ensue from failure in the attempt, the latter alternative, incision of the os, was chosen. The blade of a hernia knife was carefully introduced between the fetal head and the cervix uteri, in the interval between the pains. As soon as the uterine contraction occurred, an incision was made upon the anterior lip through the os and cervix, to the depth of about an inch and a half, care being taken to carry the division of the uterine fibres deep enough to insure the ready passage of the head, and thus obviate in some degree the danger of laceration. This procedure was followed by a discharge of some fluid blood and several large coagula, which relieved the oedematous condition of the neck. Several short and hesitating pains succeeded, as if the womb, startled by some unusual occurrence, had paused to reconnoitre; then came a prolonged, expulsive effort, and the child's head passed fairly through the os, distending the perinæum.

The termination of the labor was easily accomplished, and in less than half an hour a full-term male child was delivered. Unfortunately it had cyanosis, and in consequence survived only twenty-four hours. The mother experienced no untoward symptoms, either from the tediousness of the labor or the means employed for her relief, and is now (March 31st) convalescent. Duration of her labor, 102 hours.

In a few minutes after the birth of the child, the uterus, aided by very moderate pressure over the fundus, contracted firmly, expelling the placenta. The binder having been applied, a vaginal examination was made, to ascertain the condition of the cervix. A shallow notch marked the place where the incision had been made. There was no subsequent hæmorrhage, the lochia being even less profuse than usual.

With reference to the foregoing operation, Dr. Murphy, in his Lectures on the Principles and Practice of Midwifery (Second Edition), pages 246 and 247, observes: "If these means fail, it becomes a question whether we should wait for the death of the child, in order to remove it by the

crotchet, or incise the unyielding cervix. The former practice involves a sacrifice of life, but generally secures the mother from the injurious effects which may follow. The latter may be the means of preserving the child; but if the incision lead to a laceration of the uterus, the mother is at once placed in imminent danger of her life. The fear of such a consequence, it appears to us, has prevented any attempt from being made thus to cut through this Gordian knot of difficult labor in its first stage; but whether this, like other operations, is only surrounded by chimeras of the imagination, which some bold spirit will dissipate, remains yet to be proved. Incision has been performed without accident: the same may happen again, and we confess, in a case such as we have described to you, we should be more disposed to adopt the shorter course, in the hope of saving the child, than to wait until its death enabled us to remove it. *This, however, is but an individual opinion, and needs support.*"

He adds the following in a foot-note:—"Since these observations were first written (1845), several cases have been recorded in which the cervix has been incised, the child saved, and no mother lost. *Vide* Mr. Tweddle's case (*Guy's Hospital Reports*, vol. iv. p. 119); Mr. Butler's (*Medical Gazette*, vol. xx. p. 589); Dr. Buckminster's (*American Quarterly Journal*, October, 1847); Dr. Pagan's (*Edinburgh Monthly Journal*, August, 1854, p. 172)."

He refrains, however, from commenting upon these cases, expressing no opinion whether in his judgment incision of the cervix uteri should be included in the category of legitimate operations.

"Multiple incisions upon the neck" are recommended by Cazeaux, who asserts that "they render consecutive laceration far less probable than would a single incision." He adds:—"Very rarely will it be necessary to make them more than half an inch long, while they may be often less than this; for it is the almost universal practice to be content with cuts of from three to four sixteenths of an inch in depth only, around the circumference of the orifice. The lateral parts of the neck should be chosen for the incision, though, if necessary, they may be made upon the anterior lip, and, lastly, upon the posterior lip."

While not presuming to place our humble opinion in opposition to that of the distinguished obstetricians just quoted, we must confess that we are at loss to perceive the advantage of "multiple incisions" when one will prove equally safe and effi-

cient. It seems to us that, when practicable, a single incision should be made sufficiently free to ensure the easy escape of the head. If this be done, it is difficult to conceive why a consecutive laceration should occur. Indeed, both experience and reflection have convinced us that, when the incision is properly made, the danger of such an accident must be very small, if not purely hypothetical.

On the other hand, if the incision be not carried deep enough to accomplish *per se* the desired object, viz., the liberation of the head, it is difficult to understand why laceration should not take place, especially if the subsequent pains be violent and prolonged, as they naturally would be, excepting in cases of exhaustion, either general or of the uterus alone.

If the uterus were contracting vigorously, a laceration of greater or less extent would be very likely to ensue, when the obstacle to the advance of the head had been only partially removed by a timid and inefficient use of the knife. It is easy to comprehend how a slight cut or nick in the cervix might weaken its power of resistance at that spot, and thus become the point of departure of a dangerous, if not fatal laceration. This is certain—the depth to which an incision is carried is wholly within the operator's control; the extent to which laceration may take place lies wholly beyond it.

It seems to us, therefore, that if the knife is to be used at all, it should be used *freely*, so that when the uterus again contracts forcibly it may meet with little or no resistance from its own tissues to the descent of the fetal head. Should it appear that a sufficiently free incision could not be made through one lip only without endangering the integrity of the intra-uterine or of the abdominal structures, we are aware of no anatomical nor surgical reason forbidding the division of both the anterior and posterior lips, either at corresponding points of their respective segments, or at whatever point in each the greatest impediment seems to exist.

Such is the method, founded, as it appears to us, on rational and obvious principles, which we would submit for the guidance of the practitioner, or commend, at least, to his attentive consideration whenever it is proposed, in the language of Dr. Murphy, "to cut through this Gordian knot of difficult labor."

In the case we have detailed, we are persuaded that had we waited for "the death of the child in order to remove it by the

erchet," the mother would probably have perished also. Nearly equal danger to both would have attended the use of the forceps; and, had these failed, there would have remained no alternative but craniotomy, performed under circumstances highly unfavorable to the mother.

It remains to notice the possibility of dangerous hæmorrhage occurring as a consequence of the free incisions we have recommended, let it be understood, in exceptional cases only. We can conceive that such an accident might result, 1st, as a very rare coincidence, from the patient's possessing the hæmorrhagic diathesis or idiosyncrasy. 2d. Inertia uteri, spontaneous, or following anaesthesia from ether or chloroform, might give rise to flooding dangerous in itself, and rendered more so by the additional loss of blood to which incisions under these circumstances might give rise. As a precaution, therefore, just before the operation is performed a full dose of ergot might with propriety be administered, unless the patient were a primipara, or the medicine otherwise contra-indicated. And even in a first labor, should the uterine contractions have become feeble and infrequent, or have ceased altogether, and an evident necessity existed for stimulating the womb, ergot in small and tentative doses might be resorted to. It should be borne in mind, however, that ergot in such a case would be inadmissible unless it were evident that delivery could be effected before there had been time for its absorption. An attentive examination of the perinæum and external parts will enable the experienced practitioner to determine with sufficient accuracy the probable duration of this stage of the labor. If ergot is contra-indicated, opium, given in small and repeated doses, will prove a uterine motor-stimulant, to the good effects of which we can testify from long experience. Small as the danger probably is of any considerable hæmorrhage arising from incision of the cervix, our own judgment would be decidedly against the performance of this operation unless the uterus were contracting regularly and with power sufficient effectually to close the divided vessels.

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NEW EDITORS OF THE ST. LOUIS MEDICAL REPORTER.—DRS. W. M. McPHEETERS and G. M. B. MANGHIS succeed Dr. O. F. POTTER in the editorial management of the *St. Louis Medical Reporter*. In future this Journal will be published monthly, instead of twice a month, as in the past.—*N. Y. Med. Rec.*

## SPONTANEOUS CURE OF TUMOR DURING PREGNANCY.

By DAVID RICE, M.D., Leverett, Mass.

ABOUT one year ago, I was consulted in regard to a tumor, situated on the base of the lower jaw, by Mrs. J. H., of Shutesbury. Mrs. H. is a married lady, aged about 24, of a good constitution, and generally healthy. I was called not only to examine the tumor, but for the purpose of removing it with the knife. Mrs. H. had shown it to several other surgeons, who advised her to have it removed at once. The tumor was about the size of a hen's egg, very hard, but slightly movable, and evidently not attached to the bone. It gave her some trouble, causing pain by pressure on the surrounding parts. In removing it, it would be necessary to ligate the inferior maxillary artery, and the operation for that reason would be quite a nice one. She had up to this time tried no local applications, and I advised her to wait and try the effect of such applications.

I gave her the tinct. of iodine, and directed her to apply it thrice daily. She tried the application as directed, but received, as she says, no benefit. I did not see the lady again until a few days ago. She called at my office to have a couple of teeth extracted. She brought along with her an infant, about two months old. Imagine my surprise on beholding that the tumor had disappeared. I found, on questioning her, that about four months after she became pregnant, the tumor began to disappear, and in a few weeks, eight or ten, she said it had entirely vanished! Nothing had been done in the meantime, by local or general means, to effect a cure. It was entirely spontaneous.

Here is a nut for physiologists to crack. Did the pregnancy, by counter growth, invite the vital forces so powerfully in behalf of the young being, as to produce the absorption of the tumor? Was it removed by the agency of counter irritation? Or did the pregnancy evolve some new principle in the blood, in itself curative. Did it disappear for want of nutrition, the fœtus requiring what the tumor needed for support? Will the child be more apt to inherit the growth hereafter? Will it be likely to reappear again in the mother? Have physicians often observed such cases in their experience? I would be glad to learn the views of medical gentlemen on this interesting case.

April, 1869.

## THE PATHOLOGICAL ANATOMY OF SURGICAL STUMPS.

By DR. CHAUVEL (Army Medical Staff).

Translated for the Journal from the Archives Gênérales de Médecine for March, 1864, by B. E. COTTAGE, M.D., of Roxbury.

(Concluded from page 238.)

WE may now ask what is the mode of formation of these protuberances, and what causes tend to their development. M. Hutin gives the following explanation:—"the nascent tubercle is either formed by the crowding back of the nerve-substance into the neurilemma as the latter is drawn upon by the cicatrix, to be afterwards augmented in volume by the addition of adipose matter; or else it is due to increased thickness of the cicatricial tissue, which continues to expand between the several nerve-threads within the common neurilemma."

This explanation appears to us very reasonable and perfectly admissible. We believe, however, that he is describing a mere phenomenon of inflammatory irritation, especially when we take into account the considerable development of fibrous tissue in the extremity of a stump. Divided muscles, vessels and nerves undergo a certain degree of inflammatory irritation during cicatrization, and this irritation induces hypergenesis of the connective tissue. There is not, nor can there be, a direct union between the extremity of a divided nerve and the adjacent tissues; but perhaps the development of a neuroma may be proportionate to the latent irritation which always remains, for a longer or a shorter time, in the extremity of an amputated member. We would like to study this cicatrization of nerves at successive periods, to ascertain at what time the protuberances arise, and at what moment they cease to grow, but as yet we have met with stumps of long standing only. Hypergenesis of the connective nerve-tissue, of the neurilemma, and of the perineuron, is, in our opinion, the primary cause of the formation of these neuromata. The nerve-tubes are thus distributed in bundles through the new tumor, and remain there without alteration.

Cruveilhier asks if friction and pressure, to which the extremities of the nerves in a stump are almost inevitably exposed, are not the active cause in the development of traumatic neuromata.

Analyzing in this point of view our eleven amputations of the thigh, we see that of seven who used the stuffed long peg, six presented very large neuromata of the sciatic. Of the four who used crutches, two only had medium-sized neuromata, and two

almost nothing. It would appear from these facts that when the stump was wholly free, there was much less tendency to the production of neuromata. Although the peg, in fact, ought not to take its bearing at the stump if properly stuffed, still there is an evident necessity, in order to make walking easy or even possible, that the periphery of the thigh should be in contact with the apparatus. Hence a certain dragging and a pressure which tend to force back the soft parts towards the axis of the member. If, on the contrary, a badly made apparatus allows a displacement of the stump at each movement, the chafed parts soon become painful, and walking impossible. All these inconveniences of the peg are increased necessarily when the remaining portion of the limb is very short, for which reasons two of the three whose thighs were amputated at the upper third, used crutches exclusively. But why in amputations of the leg, when the patient used a peg (pilon) which left the stump entirely free; in disarticulations of the shoulder, where the stump was not enclosed in any apparatus, for our patients seldom used any in these cases; why were these neuromata, then, as one may truly say, constant and almost always very large?

Even if the extremities of the nerves were found englobed in common fibrous tissue merely, still some authors would insist upon the influence of pressure. But even in this our facts appear contrary to such hypothesis. The neuromata were most commonly wholly free, in the midst of other parts, and buried in very loose large-celled cellulofatty tissue. We must therefore seek another cause, and one whose action may be as constant as the effect attributed to it.

May we see in the formation of such tumors a provision of nature for the protection of the ends of the divided nerves? To justify such an hypothesis the nerve should be enveloped in this fibrous shell entire, and not separated into bundles diverging into connective tissue. And further, such a fibrous crust would rather produce the opposite effect, for the extremity of a nerve free in the midst of soft parts, would escape with greater certainty the action of foreign bodies than a large, hard, and elastic tumor, offering a greater resisting surface.

We conclude, then, that the development of neuromata is due to inflammatory irritation which follows the operation and accompanies cicatrization, but that subsequent pressure and friction are not without influence on their enlargement. It is to this latent and prolonged irritation that we must

attribute the hypergenesis of connective tissue which constitutes neurilemma. The nerve-fibres undergo no alteration.

*State of the Bones.*—The opinions of Larrey, Hutin, and Legouest, were cited above, in our History of the subject. We proceed with our own conclusions.

The primitive phenomena which follow a section of a healthy bone are those of slight osteitis, with increased vascularity; the formation of fleshy projections; and more often an exfoliation of superficial layers from the surface of the section. Then the fleshy projections develop, run together, and, becoming calcareous, form osseous beds which close up the medullary canal opened by the operation.

Often at an autopsy of a stump the bone no longer exhibits a natural condition. But a distinction must be made between amputations in contiguity and those in continuity. In the first instance the bone, not submitted to traumatic lesion, takes on only that degree of inflammation which is necessary to remove its articular cartilage, and to contract adhesions to the neighboring parts. It is this indispensable elimination of cartilage, sometimes a very slow process, that greatly retards cicatrization in these operations. The subcartilaginous parts of the head of the bone alone inflame, and the epiphysitic periosteum remains sound, if all proceeds as desired. This process being finished, the head of the bone becomes atrophied with the soft parts, sometimes to such a degree that it is said that the femur has been known to terminate in a point, after disarticulation at the knee, and thus to render the use of ordinary artificial apparatus very difficult.

As to disarticulations, we have had chiefly stumps at the shoulders to examine, and all of long standing. In all four, the stumps were well nourished, and the shoulders were not sensibly atrophied. In three the shoulder-blade was natural. In one alone the glenoid neck was sensibly flattened, and slightly reduced in size. The only constant modifications were of the glenoid cavity. We always found it deprived of its articular cartilage, flat, or slightly convex instead of concave, and covered with a fibrous tissue not adherent to the cicatrix. The glenoid fibro-cartilage had disappeared, or become confounded with the fibrous tissue. The latter was only slightly adherent to the bone. The glenoidal surface was smooth, flat, and without marks of inflammation.

In these cases, it is true, the stump was not submitted to any influence powerful



enough to effect great modifications in the bones. A simple cover of leather served to protect the shoulder from direct blows, and no other artificial appliance was made use of. The soft parts abundantly covered the underlying bones, and produced no pressure upon them.

When the bones are required to furnish a point of support to a member the modifications are more grave. In partial amputations of the foot, cicatrices often ulcerate, and the subjacent bones inflame, and become carious, or necrosed. In an autopsy of an ante-scaploid disarticulation we found ulcerations of the soft parts, caries of the bones, and vegetations surrounding the altered surfaces. There was at the same time a partial luxation of the foot upon the leg; the astragalus was carried far in front, its posterior portion only being in contact with the tibio-fibular articulation. Walking had become impossible on these parts, and the patient used the short peg (pilon). The muscles of the leg were wholly adipose; and the tendons themselves had lost their pearl white appearance, had become fatty in their turn, and were easily broken.

In amputations in contiguity the bony extremities are more apt to inflame and to change in form and size from ossific productions or new ossiform formations—the result always of a certain degree of inflammatory irritation.

The following were the results in this respect in our series of observations: In eleven amputations of the thigh, the extremity of the bone was in seven instances considerably tumefied; twice it was not very sensibly modified; and twice no change could be discovered.

According to the place of amputation we found—of three at superior third, all considerably enlarged; of four at middle third, two considerably, one slightly, and one of natural size; of four at inferior third, two considerably, one slightly, with bony crests, and one of natural size.

Thus hypertrophy of the bony extremity by the addition of new layers, or the production of crests and ossific concretions, is to be found very frequently in amputations of the thigh, especially at its upper third.

As to the leg, we always found that the tibia had undergone very slight or quite inappreciable changes in form and volume. The fibula was uniformly dwindled, more or less pointed, and drawn towards the tibia.

In the arm the results were about the same. The humeral extremity was not sensibly modified. Now and then there were ossific crests, or slender projections on its edges;

quite as often it was slightly shrunken and its walls compressed together.

From our rapid sketch it would appear reasonable to adopt the conclusions of Larrey; that when the bone does not serve as a point of support, or sustains no pressure, as in stumps of legs, arms, &c., it gradually tends to become atrophied; while on the other hand, under opposite conditions, as in stumps of the thigh, its extremity becomes enlarged and club-like.

But we can admit only a part of the first proposition of Larrey. Instead of asserting with that illustrious surgeon that the end of the bone shrinks, flattens, and atrophies, our observations simply warrant us in saying that it usually preserves its natural volume, or only becomes slightly atrophied, or at times thinly covered with crests or bony accretions.

As to Larrey's second proposition—we remark that of two who suffer amputation of the thigh, one of whom walks with the long peg, the other with crutches, the first only ought to have a club-shaped bone, for he alone has the point of support at the extremity of the stump. But in our eleven amputations of the thigh, three used crutches exclusively, and yet these three presented large tumefactions of the femur. Of the eight which remain, four only showed such enlargements, and all these used the peg; that is to say, were most exposed to frictions, dragging and pressure.

It seems, then, difficult to attribute these osseous deposits to the mechanical influences invoked; and yet, when one sees that these productions form almost exclusively on the thigh, and never, or very rarely, on other parts, he finds it difficult to believe that irritation or latent inflammation is the principal cause, since this should act on all kinds of stumps alike.

There is, however, a special reason for this irritation in amputations of the thigh. Stumps of thighs, as we have said, have the greatest tendency to concavity. In spite of all precautions, the consecutive retractions of the soft parts are continually forcing forwards the thigh bone. This bone, in this way becoming thinly covered and badly protected against exterior influences, is now more subject to pressure and friction. Thus a continued source of latent inflammatory irritation, whence the production of new osseous layers is readily comprehended.

These ossific concretions take on all possible appearances, and give to the ends of the bone shapes as different as those of the stumps themselves. Sometimes there are only slight projections or crests of a few

lines in height; sometimes, again, for a considerable extent there are very regular layers, which double or triple the thickness of the bony walls. In some this transformation does not exceed a third or half an inch; in others the hypertrophy rises three to five inches above the surface of the section, and gives the bone the almost exact form of a pestle.

When the medullary canal closes, it is almost invariably effected by a layer of new bone. We are wholly ignorant at what precise moment this takes place. We can only say that in three of the eleven amputations of the thigh we found this obliteration incomplete; an exception still more rare in the tibia and fibula. The firm, rounded passage which led into the medullary canal, varied in diameter from one to three-tenths of an inch, or thereabouts. Surrounded by a very thin and fragile bony rim corresponding to the centre of the osseous section, this passage was closed up by a dense, almost cartilaginous tissue. The operations dating back twelve or thirteen years, there seemed little probability that the obliteration was of recent occurrence.

When the medullary canal is closed, as it usually is, the thickness of the bony layer closing it varies from less than a twentieth to more than half an inch. This layer is often so thin as to be quite transparent, but always so dense, hard and resisting that it cannot be pierced by the scalpel.

All these osseous layers of new formation were, in fact, composed of compact tissue, hard as ebony. Ordinarily no decided line of demarcation existed between the old bone and the new accretion. Perhaps, nevertheless, the new tissue may have had a little deeper color, while tending to a characteristic greyish tint, especially in the central portion of the growth.

Unfortunately, we did not examine this new tissue with the microscope, to determine whether it was formed of true bone or of mere calcareous deposits; but its mode of formation, its aspect, and its structure, all led us to the former hypothesis.

The surrounding fibrous tissue gave to these osseous productions a periosteal covering which adhered intimately. Vessels traversed it and passed into the bone. It is the internal layers of this fibrous tissue that become ossified by the latent irritation, which follows operations and is induced by shocks and friction.

In members of two bones (leg, fore-arm), the bones, being no longer retained apart, tend, after section, towards each other at their extremities. On them osseous vege-

tations were less abundant and less developed. We have seen the shrunken fibula inclining towards the tibia, and united to it by strong fibrous bands; and even, in one case, by a true, compact, and very resisting, osseous bridge.

Such were the principal transformations we met with in Surgical Stumps. We regret that we had not a larger field and more varied observations to render a study of the subject at once more complete and more interesting.

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### THREE REMARKABLE CASES OF ARREST OF DEVELOPMENT OF THE EYE, OCCURRING IN THE SAME FAMILY.

In a family residing in one of our neighboring towns, three very remarkable cases of arrest of development of the eye have occurred. Besides the father and mother, the family consists of nine children. The youngest, a baby of a week old, was born with the left eye only about half developed—presenting the appearance that is often found in an eye which has been destroyed through the agency of a large ulcer of the cornea. It is about half the usual size, with a central opacity, the cornea being partly formed, and the iris can be distinguished, though smaller than normal. No pupil can be discovered. The other eye is perfectly formed. The second case is a boy of seven years of age, whose right eye is only partially formed, presenting a similar appearance to the first. In the last case, a boy of 14, the right eye has wholly disappeared, there being nothing in the socket but the conjunctiva, which lines the cavity. The left eye presents nothing abnormal. The children are all healthy and robust. Nothing of a similar nature has been known to exist in any of the ancestors. The father and mother have perfectly formed eyes.

Thinking these cases might be interesting to the readers of the JOURNAL, and having never seen similar ones spoken of in works on the eye, I thought them worth reporting.

G. E. H.

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CERTIFICATES of attendance on the several courses of lectures delivered in the College of Physicians and Surgeons, New York, will hereafter be recognized by the Royal College of Surgeons of England, and the Diploma of Doctor in Medicine of the said College will also be recognized.—*N. York Medical Record.*

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Reported by FRANK W. DRAPER, M.D., House Surgeon.

*Lithotomy.* (Service of Dr. CHEEVER.)—The patient, a very debilitated man, of restless and fretful disposition, and 68 years of age, entered the Hospital in November, 1868, having suffered from the symptoms of stone in the bladder during the whole of the previous year. He had complained of pain in the bladder and urethra, and was made especially uncomfortable by the continual incontinence of urine. At the time of entrance the urine passed guttatum, and with much pain. It had been found necessary to resort to opium on account of the distress. He was much reduced in strength, and the general constitutional disturbance was marked.

The sound detected the presence of a calculus of large size. Under ether, bilateral lithotomy (Düpytren's operation) was performed, both incisions being semi-circular with the concavity opening downwards. On opening the bladder through the prostate, two stones were discovered, a small one and one much larger. The former was removed without much difficulty, but for the delivery of the latter it was found necessary to enlarge the opening. This larger calculus was irregularly spheroidal, its long circumference being *seven inches*, and its shorter *five inches*. It weighed 1320 grains; equal to  $2\frac{3}{4}$  ounces. An elastic catheter was fastened in the bladder through the wound.

Stimulation was found necessary near the close of the operation, but in six hours the patient reacted perfectly. During the three days succeeding the operation he was comfortable and in satisfactory condition. Nourishment was taken quite freely, and the constitutional disturbance was comparatively slight. On the fourth day, however, typhoidal symptoms began to develop themselves. The pulse went from 90 to 104–108. The appetite was lost, the tongue dry and brown, and a diarrhoea set in which for a time resisted remedies. Meantime, the catheter was removed and the urine passed freely through the opening in the perinæum. The wound was indolent and sloughy at the edges.

After three days of this relapse, the symptoms began gradually to improve. All the unfavorable signs gave place to an encourag-

ing condition of things. The wound improved daily, and healthy granulations succeeded the indolent and sloughy condition previously existing. With increasing improvement, the petulance and dissatisfaction of the patient increased, and on the seven-teenth day after the operation, at his urgent request, he was discharged, with the cure progressing favorably. Three months later he reported himself as quite well.

*Fatal Case of Wood's Operation for the Radical Cure of Hernia.* (Service of Dr. CHEEVER.)—D. K., aged 50 years, had had double oblique inguinal hernia ten years, brought on by violence. An attempt had been made about five years previously to his entrance to Hospital to cure the affection, by some subcutaneous operation, but with only partial success on one side. He found that in his occupation the truss he wore was an insufficient safeguard, and he desired some radical operation. With a view to preparing himself better for the operation, he had unwisely "dieted," and had abstained from meat during the week previous to his entrance, although he did not report the fact at the outset.

Under ether, Wood's operation, with the wire sutures, was performed; on one side a double cross stitch was taken in the spermatic fascia, and on the other side a single one. The inguinal rings were large, and the pillars were easily approximated and the openings closed. The subsequent constitutional disturbance was primarily considerable. Moderate pain was controlled by morphia. On the day following the operation, the patient reported himself comfortable. The wound was quiet, and its edges were without irritation. There was no pain in the abdomen, and no symptoms of general disturbance. But the patient could not be induced to take food, and resisted all advances in that direction.

During the second night after the operation the scrotum and penis became extremely œdematous and red and tender; and the edges of the wound in the scrotum had commenced to slough. The patient had passed a restless night; his pulse, before 96, now became 104. There was still complete anorexia, and the general constitutional disturbance was marked. The conjunctivæ assumed a straw color. There was a tendency to mild delirium. The abdomen was slightly tympanitic and tender.

Under ether free incisions at each side of the scrotum and down the dorsum of the penis set free the serum, and discovered the sloughing process to be already fully established. A dressing of diluted solution of

chlorinated soda was applied. The wires were removed and all the parts left free. Quinia and aromatic sulphuric acid were exhibited, alternating with brandy and beef-tea. Partial relief followed these active measures, but the tendency was unfavorable. Food and stimulants were still taken with difficulty and under protest. The abdominal symptoms became more grave. Pulse 108, weak. Mind generally clear.

On the fourth day all the symptoms were increasingly unfavorable. The patient did not complain of much pain, but the general depression was excessive, and stimulation failed of producing any effect. The abdomen became markedly tympanitic. The scrotum and penis continued to undergo decomposition. In spite of remedies, the patient sank and died ninety hours after the operation.

*Croup; Tracheotomy; Recovery.* (Service of Dr. CHEEVER.)—Edward L. G., aged 2½ years, entered the Hospital Nov. 17th, with the following history. He had been attacked with symptoms of croup twenty hours previously; free administration of ipecac. had brought no relief, and his removal to the Hospital, with a view to tracheotomy, was advised. At entrance, the respiration was very hurried and gasping; the face was livid, and symptoms of great gravity were obvious. Pulse 140, jerking and feeble.

Tracheotomy was performed under ether, the operation being without complication, and attended with immediate relief to all the distressing symptoms. The patient was removed to steam-room, the temperature of the room being maintained at 75°.

After two hours the child took milk, and was breathing quietly, occasionally throwing bloody sputa from the tube. The pulse fell to 120. The following mixture was given, in drachm doses, every four hours:—

R. Tr. ferri chloridi, ʒi;  
Tr. opii camph., ʒij;  
Syr. aurantii, ʒiiss. M.

The first night was passed in comfort. The respiration was generally quiet, and was disturbed only by paroxysms of coughing, in which fragments of false membrane were ejected. The inner tube was removed and cleaned every two hours. The appetite of the patient improved hourly, and milk and beef-tea were administered freely. During the three days following the operation, a diarrhea was present as a complication; it subsided under opiates.

On the fourth day the tube was removed, but as distressing paroxysms of coughing

supervened, it was replaced, under ether. Improvement was steady until it was again removed, on the eighth day after the operation. The cough had in great measure subsided, and there was no evidence of an extension of the formation of the membrane in the air passages.

The wound healed kindly, and with satisfactory rapidity. The general condition improved proportionately, and the patient was discharged, well, on the fifteenth day after tracheotomy.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, MAY 13, 1869.

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NOTES FROM THE GAZETTE HEBDOMADAIRE  
DE MEDECINE ET DE CHIRURGIE.

*M. Claude Bernard on Opium and its Alkaloids.*—The effect of extract of opium as compared with that of morphine, is thus illustrated by M. Claude Bernard. A pigeon got ten centigrammes of extract of opium under its skin, and another pigeon had inserted into it in the same manner ten centigrammes of chlorhydrate of morphine. At the end of five minutes, the first pigeon was seized with slight convulsive movements, which soon increased, and became so intense that the bird rapidly died in convulsions. The pigeon which got the same quantity of morphine as the other had of extract of opium, remained, on the contrary, absolutely unharmed. Retained before the eyes of the audience during an entire lecture without showing the slightest trace of *malaise*, he survived the experiment as though nothing had been done to him. Subsequently, M. B. stated that pigeons are very refractory to stupefying agents. Bernard infers that there are two eminently different agencies in opium. In fact, out of the six alkaloids of opium, three are soporific and three are convulsive. The first three, stated in the order of intensity of soporific action, are narceine, morphine and codeine; the second class, ranged in the order of intensity of convulsive action, are thebaine, papaverine and narcotine. Again, the three hypnotic alkaloids, notwithstanding their mutual analogy, pre-

sent real differences *inter se*. Thus, narceine causes profound sleep, but as soon as that sleep is awakened from, the faculties are quickly recovered. It is not so with morphine. M. Bernard relates this fact. Into one of two dogs accustomed to play together he injected five centigrammes of morphine; into the other, the same quantity of narceine. They both went to sleep. But, on awaking, the animal which had been poisoned by morphine was morose and flurried, not recognizing his companion; while the other immediately resumed his playfulness. The following day the experimenter reversed the conditions, causing the animals to interchange their rôles; and the result obtained confirmed by the counter experiment the first demonstration.

Clinical experience amply sustains the following inference drawn by Bernard. The hypnotic alkaloids of opium have two successive periods of action—the first, that of excitement; the second, that of stupor.

Our author now makes a further classification of the alkaloids of opium, dividing them into three classes, in the order of their intensity of action, as follows:—

<i>Exciting.</i>	<i>Soporific.</i>	<i>Convulsive.</i>
1. Codeine.	1. Narceine.	1. Thebaine.
2. Morphine.	2. Morphine.	2. Narceine.
3. Narceine.	3. Codeine.	3. Papaverine.*

Bernard claims to have demonstrated that the common opinion is correct, that the immediate action of narcotics is upon the brain.

We subjoin the following statement from the *London Medical Times and Gazette*:—

"Most of our readers are aware that Dr. Weir Mitchell, the American physiologist, announced some months ago that pigeons appear to be insusceptible of the action of opium. He administered twenty grains to a pigeon in one day without the slightest effect resulting. At the meeting of the Medical Society of London on April 5th, Dr. Richardson exhibited a pigeon on which a similar experiment had been tried, but had been carried to much greater length. This bird, which appeared to be in perfect health, had been first treated by the subcutaneous injection of morphia, two grains being injected at once. Twenty-one grains of opium were then administered to it on

three successive days. The dose was then increased to thirty grains, which quantity was also taken daily for three days. Finally, for five days, the same pigeon took sixty grains of solid opium daily, and, at the end of the time, remained in apparently perfect health. After the injection of morphia, Dr. Richardson noticed that the pigeon vomited slightly; but he thinks this was rather due to the operation than to the physiological action of the alkaloid."

We presume M. Bernard has verified the convulsive action of extract of opium (subcutaneously injected) by repeated experiments; and the question therefore arises, was the opium which Dr. Richardson's birds "took" digested and absorbed? and if it were, why are they not convulsed? The subcutaneous injection of morphine, both by Bernard and Richardson, had the same result of impunity. Bernard also states, as above cited, that pigeons are very refractory to "stupefying" agents.

As to the *local* action of "anæsthetics,"\* the Professor is inclined to allow its real existence; and denies that it is at all contradictory to the theory of the exclusive action of narcotics on the brain. He invokes the theory of Bichat—which, though it has been often called in question, he is disposed to admit—that the nervous ganglia are rudimentary brains disseminated throughout the whole body. Each one of these ganglia presides over, or at least influences, within a circumscribed zone, the action of one or another organic system. Though the ganglion is in subordination to the direct influence of the encephalon, M. Bernard claims to have shown that it is to a certain extent possessed of "autonomic" action. He expresses the opinion that in the local application of narcotics their first action is on the ganglia, the brain playing but a secondary part. Thus, a narcotic applied to the intestine paralyzes first the ganglia of that intestine, and after that the encephalon may be brought under its influence. For the purpose of showing the local action of a narcotic on the functions of an organ he exhibited two pigeons; one of which had, the evening previous, received

\* Previously, Bernard is reported as placing papaverine 2d, and narcotine, 3d. There is, therefore a misprint somewhere.

\* It is evident from the context that Bernard means something quite different from the practical fact of the local and external insensibility produced by freezing, &c. —EDITOR.

ed into its stomach ten centigrammes of morphine. Its gizzard was full, although it had not taken food for twenty-four hours; while the gizzard of the other bird, which had taken no morphine, was empty, both pigeons having been fed at the same time and with the same quantity of food. Further experiments are requisite here, he acknowledges, because morphine subcutaneously injected produces the same effect, to the extent of notably impeding the digestion.

We ask, as we did in relation to opium ingested by pigeons, was the morphine digested and absorbed?

*Ophthalmic Hygiene of Type-setting.*—Dr. H. Kohn has been examining the eyes of 132 compositors in printing offices. Half of the subjects were near-sighted. That is, of the 132, there were 68 near-sighted—51.5 per 100. 7.6 per 100 were hyperopic. Comparing these results with those observed among scholars and students, there were found among the former 55.8 per 100, and among the latter 60 per 100, myopic. Among the 68 myopic typographers, 51 had begun life in the enjoyment of good eyesight.

The employment of artificial light had a marked influence. The proportion of the near-sighted compositors who used oil lamps was greater than that of those who worked by gas. Further, out of 125 typographers, those who of their own choice used gas numbered 75; those who preferred oil, 42; and those who selected petroleum, 9. The temperature developed in the vicinity of the eyes was for oil, 22°5; for petroleum, 22°; for gas, 21° [Centigrade].

In fine, the predominant affection of the eyes among compositors is progressive near-sightedness. M. Kohn advises them to secure a good light by day; and at night to use a lamp [or burner] with a chimney and a shade, so arranged as to illuminate only the objects on which they are at work—not, the eyes of the compositors. He counsels them to dispense with small type; and to confine themselves to a comparatively short amount of daily labor—particularly not to work from eight in the morning till ten at night, with one hour only for

meals; for such is the custom in most of the printing offices of Breslau.

No appeal is made by M. Kohn to the humanity of writers for the press to furnish legible manuscript.

At a meeting of the *Société Médicale des Hôpitaux*, M. Raynaud read a note upon a new parasitic affection of the lingual nervous membrane. The affection is entirely local, and is not a serious one. M. Raynaud has met with it twice, and has found it characterized by an alteration of the epithelium of the lingual papillae, and by the presence of a vegetable parasite consisting entirely of spores. The spores resemble those of the *Tricophyton* of *Herpes circinatus*, &c.

A NEW METHOD FOR SECURING DIVIDED VESSELS is described by Dr. LENTE, of Cold Spring, N. Y., in the *American Journal of the Medical Sciences*.

"The idea is simply this: cut off a length of silver wire, say three inches, less will do, however, for small arteries; give it a sharp bend in the middle, then one or two twists as near the bend as possible. This forms the ligature. *Mode of Application.*—Secure the twisted end of the ligature in a pair of spring or catch forceps, and it is ready. Draw out the vessel to be ligated, or, if a small one, the tissue in which it is, with a tenaculum or forceps, in the usual manner; let an assistant apply the ligature against the vessel at the point where the two legs diverge from the twist; then the surgeon takes hold of the two ends and gives as sharp a twist on the vessel as possible, and then secures the hold by two or three half turns. The silver wire is so soft and pliable that but very few turns are necessary to prevent slipping. After a little practice, these ligatures may be applied with great facility. At first, it is a little awkward compared with the silk ligature, but compared with any other mode of securing vessels it is more simple. As regards the size of the wire, the surgeon will perhaps use his own judgment; but I have used ordinary suture wire for the smaller arteries, and a larger wire, No. 26, for large arteries. The suture wire would be strong enough to hold any artery, I think; but if drawn tightly it would probably be more liable to damage the inner coats, which is not desirable, and there is more uncertainty in making the twist take a firm hold of the artery while tightening the larger wire.

The surgeon, having twisted the wire, cuts off the end with ordinary scissors, within two or three turns of the artery; the other end, if not too long, may be left, as we thus avoid having *two* sharp ends to the ligature. This leaves a very minute quantity of metal around each vessel, so little, in fact, that after a dozen such ligatures have been applied, it becomes somewhat difficult, in course of half an hour, to find one of them, except by searching carefully. They soon imbed themselves in the tissues, and disappear from sight.

"The advantages of this mode of ligating are obvious, provided we can be secure against further trouble from the foreign substances left in the wound. I was induced to believe that pure silver would become encysted, and would thus not give rise to any future inconvenience from the fact that substances, much more likely to irritate and inflame the tissues, remain in them harmless for an indefinite time."

In an elaborate article entitled "Experimental Researches on the Physiology of the Cerebellum," Dr. S. Weir Mitchell describes his experiments on that organ, and compares them with those of other observers. He says:—

"I have caused irritation of the cerebellum in pigeons, rabbits, and guinea-pigs, by the following processes: by inserting a strong needle-like awl through the skull; by injuring the organ after trephining, or, in birds, after slicing off a piece of skull; by injecting into the cerebellum globules of mercury with or without a minute amount of persalts of iron to arrest hæmorrhage; by freezing the part more or less, and allowing it to thaw so as to cause congestion; and lastly, by painting the exposed part with tincture of cantharides or other irritant fluid. . . .

"In the light of all that I have previously pointed out, I shall now review the question of cerebellar function.

"We must admit, in the first place, that apparent loss of co-ordination follows cerebellar lesions. It appears clear from my own researches, that these injuries do not cause this result, owing to mechanical and incidental affections of near parts.

"In birds, injuries and congestion of the spine give rise, at first, to seeming in-coordination, or at least to exactly such phenomena as follow like injuries addressed to the cerebellum. When the cerebellum has been removed spinal irritation still continues to evolve the same symptoms as when the

cerebellum exists untouched. These facts indicate for these two organs in birds, at least, a curious community of pathological symptoms, and probably of physiological function. If, then, there be such a functional entity having a separate seat as the so-called co-ordination, it belongs in birds to an extensive region, including the cerebellum and a large part of the spine.

"There is yet possible, however, another view of cerebellar activity which will accept all the facts and account for all. Let us suppose the cerebellum to be a great ganglionic mass, possessing the same motor functions as the gray matter of the spine, related like it, and through it, to the voluntary muscles. Irritations of its tissue, ablation, the temporary equivalent of extensive irritation, congestions, as from cold or other causes, might occasion both directly through the spine, or indirectly by reaction on its ganglia, just such confusion of motion, restlessness, and locomotor disorders, as we do actually see, and as were said entitle it to be called the organ for co-ordinating muscular acts. As the irritation disappeared, so would the muscular disturbances, until, when there was no longer irritation, there would cease to be locomotor difficulties of the character described, the spinal centres having by degrees assumed with the aid of the will the function shared in health with the lost organ.

"Referring anew to laws of research laid down at a former page, I remind the reader that if an organ be lost, and no function *finally* disappears, it either had none or possessed one in common with some part which remains uninjured and capable of at last supplementing the function of the destroyed tissues. For these reasons I am disposed to deny to the cerebellum any larger share in co-ordination than exists in any ganglion employed in voluntary motion, and to assign to it a part closely relating it in powers to the chain of spinal ganglia. The cerebellum becomes for me, therefore, a great reinforcing organ, capable of being more or less used in volitional muscular motion. Its loss, as I have elsewhere stated, leaves finally no functional defect save some incapacity for prolonged motor activity.

"The apparent in-coordination which follows section through the deeper layers of the cerebellum, is simply a confusion of movement due to the joint action of two separate and interfering agencies. In health the cerebellum is called upon by the will when needed, and acts through the spine

on the muscles. After irritation or ablation (the equivalent, for a time, of extensive irritation), we have two sets of forces in action—that arising from the excited and wounded efferent cerebellar fibres, a force inconstant, irregular, involuntary; and secondly, the normal activity of the will, which, in presence of the former disturbing power, fails to evolve the usual orderly reply from the muscles. The general result is seen in the strange confusion of movement which is so familiar to the physiologist. . . .

"I ought to add, that while I believe the cerebellum to be one of the great centres of force-development for voluntary, and perhaps involuntary motion, I am not at all prepared to assume that it has no other function.

DR. JOHN D. ATLEE describes a Laryngeal Tumor removed by opening the Larynx, after the insertion of a tube into the trachea.

"The patient was a boy of 15, previous to his disease hearty and robust. For 16 months he had been aphonic. Dyspnoea had become so urgent that asphyxia seemed impending. Attempts to use the laryngoscope had been unsuccessful from irritability of the fauces. On the 3d of October Dr. Atlee opened the trachea and inserted a tube. The presence of the tube was easily tolerated, and the patient exhausted by previous loss of blood fell, almost at once, into a deep sleep.

"November 17, I opened the larynx in the usual way, the patient being partially under the influence of an anæsthetic. On exposing the interior, masses of abnormal tissue presented themselves at the opening, during the efforts of coughing made to get rid of the blood flowing into the trachea. These were seized with the forceps from time to time and removed. Three portions, the first as large as a small filbert, the others the size of peas, were torn from their attachment to the mucous membrane. The ventricle of Morgagni on the left side seemed filled by this tissue. The whole amount removed would fill a large sized sewing thimble. As determined afterwards, it weighed twenty grains.

"After thoroughly cleaning the interior, a stick of nitrate of silver was rubbed thoroughly over the whole raw surface, and the external wound was closed by two harelip sutures and adhesive strips.

"The tumor removed, on examination, displayed under the microscope the anatomical elements found in epithelial growths.

"I saw this patient on the 21st of Janua-

ry. He had entirely recovered his voice, and was going to school. He had been kept from school a year and a half on account of the loss of voice. When first seen he was pale, emaciated, and rapidly losing flesh. He had become rosy, robust, and weighed 86 pounds in place of 64. He appeared in every way perfectly well."

CARBOLIC ACID AND HOSPITAL MORTALITY.—M.D., in *London Medical Times and Gazette*, says:—

"In answer to your correspondent who inquires as to the effect of carbolic acid on the statistics of Hospital mortality, I would beg to refer him to the annual reports of the Glasgow Royal Infirmary, the last of which, for 1868, has just been published. If he will take the trouble to calculate the mortality from the primary and secondary amputations of the thigh, leg, arm, and forearm before and after the introduction of carbolic acid into that Hospital, he will find that the results are not in favor of the so-called antiseptic plan of treatment. In the years 1860, 1861, and 1862—before the introduction of carbolic acid—I find 126 of the amputations I have mentioned recorded. Of these 126 there died 41, which gives a mortality of 1 in 3. On the other hand, in the years 1867 and 1868—or since carbolic acid has been used so extensively in that Hospital—there were 73 amputations of the same kind. Of these 30 died, giving a mortality of 1 in 2½.

The results are even more unsatisfactory if we take the compound fractures, which are the cases reported to be the most benefited by the carbolic acid treatment. I find in the three years already mentioned that there were 114 compound fractures treated in the Infirmary, of which 26 died, or nearly 1 in 4½. In 1868—a year in which, as I have been told, all the surgeons to the Hospital used carbolic acid—there were 59 compound fractures treated with a mortality of 20, or more than 1 in 3. Your correspondent may digest these data at his leisure.

NATIONAL CONVENTION FOR THE REVISION OF THE PHARMACOPOEIA OF THE UNITED STATES.—At a meeting of the Convention, held in May, 1860, the following resolutions were adopted:—

"1. The President of this Convention shall, on the first day of May, 1869, issue a notice, requesting the several incorporated State Medical Societies, the incorporated Medical Colleges, the incorporated Col-



leges of Physicians and Surgeons, and the incorporated Colleges of Pharmacy throughout the United States, to elect a number of delegates, not exceeding three, to attend a general convention, to be held at Washington on the first Wednesday in May, 1870.

"2. The several incorporated bodies, thus addressed, shall also be requested by the President to submit the Pharmacopœia to a careful revision, and to transmit the result of their labors, through their delegates, or through any other channel, to the next convention.

"3. The several medical and pharmaceutical bodies shall be further requested to transmit to the President of this convention the names and residences of their respective delegates, as soon as they shall have been appointed, a list of whom shall be published, under his authority, for the information of the medical public, in the newspapers and medical journals in the month of March, 1870."

In compliance with the above resolutions, the President of the convention announces that a meeting will be held in Washington, D. C., on the first Wednesday in May, 1870, and requests that the several incorporated bodies shall, after a revision of the U. S. Pharmacopœia, send the results of their labors to the convention, and further requests that they transmit to the President the names and residences of their several delegates, so soon as elected, that the list may be published.

Geo. B. Wood,  
President of the Convention of 1860.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.—At the annual meeting, at Waltham, April 14th, 1869, the following officers were chosen, viz.:—*President*, Jeffries Wyman, of Cambridge. *Vice President*, Howland Holmes, Lexington. *Sec'y*, C. E. Vanghan, Cambridge. *Treasurer*, John W. Willis, Waltham. *Censors*.—A. P. Hooker, H. H. Pillsbury, G. C. Lincoln, S. W. Driver, L. R. Stone. *Councillors*.—Anson Hooker, R. L. Hodgdon, W. W. Wellington, G. I. Townsend, Morrill Wyman, J. B. Taylor, A. Hosmer, J. W. Bemis, J. C. Dorr, J. T. G. Nichols, T. P. Robinson.

ASSOCIATION OF AMERICAN MEDICAL EDITORS. *New Orleans, May 6*.—A number of editors of American medical journals were in attendance at the meeting of the American Medical Association here, and formed an organization under the name of "The Association of American Medical Editors." Dr. N. S. Davis, of the *Chicago Medical*

*Examiner*, was chosen *President*; Dr. W. M. McPheters, of the *St. Louis Medical and Surgical Reporter*, *Vice President*; Dr. W. S. Mitchell, of the *New Orleans Journal of Medicine*, *Permanent Secretary*; Dr. J. B. Lindsey, of the *Nashville Journal of Medicine*, *Secretary*. The Association will hold its annual meeting at the same time and place as the meeting of the American Medical Association. The latter meets next year at Washington, D. C.

SPECIMENS OF OPIUM.—Report by Dr. Schrott, Prof. in Wien, on the Opium sent to the Paris Exposition Universelle of 1867.

Turkey, Egypt, India, Algiers—Merek, Howard and Macpharlan—sent specimens of opium. Della Sudda exhibited six specimens containing 10 per cent. of morphine; Adrian, a specimen from Smyrna, same strength.

From Egypt came three sorts, containing respectively 2-3, 5, and 8 per cent. Persian opium in various forms contained 8-10, 13, 9, 13; Smyrniote, three sorts, 5-11 and 12 per cent. Two sorts from Constantinople, 10-12-16. Adulterated Turkish, 1½-3. Indian, from Patna and Benares, 5-5½; Malvaopium, 5½; domestic, grown and manufactured in Darmstadt, 1848, 15 per cent., but in 1854, the crop from the same place yielded only 1½ per cent. Many sorts, especially the Persian in the form of sticks, seem to have gained considerably in strength; formerly this contained only 1 per cent., now 8-10. This is ascribed to the absence of starch, with which the older specimens were adulterated.—*Allg. Wiener Med. Ztg.* No. 12.

D. F. L.

EXAMINATION OF PORK.—Tiemann, Conservator of the Zoölogical Museum at Breslau, recommends the thorough examination of a single bit of muscle, taken from the diaphragm or psoas major of the slaughtered swine. He uses a lens that magnifies only ten diameters; saying that the trichina is much more likely to be overlooked when a higher power is used.—*Allg. Wiener Med. Ztg.*, No. 8.

D. F. L.

TO THE LONDON MEDICAL TIMES AND GAZETTE.—With reference to the "iron bar case," we would explain that the tamping iron entered by its pointed end, the left side of the face, immediately anterior to the angle of the lower jaw, and passing obliquely upwards, and obliquely backwards, emerged in the median line, at the back part of the frontal bone, near the coronal suture.

## Medical Miscellany.

**PERTUSSIS.**—Oppolzer says (*Höfner's Medicale Presse*) narcotics and astringents appear to reduce the duration of the disease about one half. Belladonna is probably the best, but simply because of its narcotic action. Tannin acts well in the third stage, or that of expectoration. In the case of children one or two years old, he began with pulv. rad. belladonna, gr. 1-12th, morning and night, gradually increasing up to gr. 1-8th, or gr. 1-6th, taking the pupil as a guide. Emetics are only given when the bronchial tubes are filled with masses of mucus. To those who were arrived at years of discretion, he also gave sodæ bicarb. 3ss., in a tumbler of sweetened water, a mouthful to be swallowed just before an anticipated paroxysm, for diluting the phlegm. The following also acts well the same part:—

R. Coccionella, gr. v-vijj.  
Potassæ carbonatis, gr. x.  
Aque f. dest., 1℥i. M.

Sig. Give a tablespoonful every two hours.

Change of air is good, even if patient can be removed but a few miles. If this is not procurable, keep the patient in a room with an equable temperature. For the resulting anemia use good diet. Dr. Link's extract of meat is good. Medicine may also be required.

In conclusion, it may be stated that of late many French physicians recommend the exhalations from lime which has been used in purifying burning gas, or, better still, gazéol. Oppolzer has had no experience with these remedies.—*Dublin Medical Press and Circular.*

ALL natural wines, if any improvement is to be effected by age, must throw down a deposit, and thereby they become sweeter in bottle by the elimination of their tannin, tartrates, &c. From red wine the deposit contains tannin, which, uniting with the albuminous matter contained in the wine, forms a crust, that year by year becomes less and less, until at length it becomes so thin that it acquires the name of "beeswing." The deposit also takes the form of crystals, which will both adhere to the cork and fall to the bottom of the bottle like powdered glass. All natural wines that have been any length of time in bottle should therefore be decanted with care.—*Ibid.*

In the last Annual Report of the Smallpox and Vaccination Hospital, London, occurs the following statement:—

"The opinion which, early in the course of the late epidemic, the officers expressed on vaccination, neither requires, they say, qualification, nor admits of limitation. They repeat:—Although it has not entirely fulfilled the sanguine anticipations of its earlier advocates, it is the greatest boon which was ever conferred by man upon his species. Properly performed, with good active lymph, and with not less than four punctures producing vesicles, and these running the course so minutely and graphically described by Jenner, and leaving not less than four typical cicatrices, vaccination robs the most fatal and acute disease known

in this country of its malignity, and reduces the mortality of smallpox from 35 per cent., or even a higher rate, to less than 1 per cent."—*London Medical Times and Gazette.*

**PROF. LEE** has described a new disease, or, as he termed it, an unpublished disease, namely, *Ammoniamia*. He commenced by saying, that it must be put alongside of uramia and of albuminuria, with which it had been confounded; its etymological meaning is, adulteration of the blood by carbonate of ammonia.—*Richmond and Louisville Medical Journal.*

**TORSION OF ARTERIES.**—Prof. Humphrey, of Cambridge, has published a lecture on this subject. He has for several months back abandoned the use of acupressure, of which method he was a follower, and has used torsion in all cases exclusively, meeting always with the best results, even in amputations of the thigh or leg.—*American Journal of Obstetrics.*

### MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Records of Middlesex South District Medical Society—Records of Boston Society for Medical Improvement—Nomenclature of Diseases—Cataract in Children—Accommodation of Eyes in Birds—Chloride of Gold in Microscopy.

PAMPHLETS RECEIVED.—Anatomie et Physiologie du Poinçon considéré comme Organ de Sécrétion. Par le Docteur Fort, Ancien Interne des Hôpitaux, Prof. d'Anat. et de Phys. à l'Ecole Pratique, &c., Paris.

MARRIED.—In South Dedham, May 1st, Francis M. Cragin, M.D., to Miss Mary E. B. Day.

DIED.—In this city, 5th inst., Dr. L. M. I. Miguault, aged 51.

DEATHS IN BOSTON for the week ending Saturday noon, May 8th, 111. Males, 61—Females, 47.—Abscess, 1—accident, 8—apoplexy, 1—congestion of the brain, 1—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 2—cancer, 2—consumption, 24—convulsions, 2—croup, 2—diphtheria, 2—dropsy, 4—drowned, 2—erysipelas, 1—scarlet fever, 11—typhoid fever, 1—hemorrhage, 2—disease of the heart, 1—intemperance, 1—disease of the kidneys, 3—disease of the liver, 3—inflammation of the lungs, 8—marasmus, 2—measles, 1—paralysis, 3—premature birth, 3—rheumatism, 3—scrofula, 1—disease of the spine, 1—suicide, 1—teething, 1—unknown, 7—whooping cough, 2.

Under 5 years of age, 41—between 5 and 20 years, 16—between 20 and 40 years, 24—between 40 and 60 years, 16—above 60 years, 14. Born in the United States, 82—Ireland, 19—other places, 10.

## AMERICAN MEDICAL ASSOCIATION.

THROUGH the kind intervention of a friend in the Norfolk District of our State, a gentleman of New Orleans has sent us slips from the N. O. *Picayune*, containing a report of two days' proceedings of the Association. The proceedings of the first day, as given below, are from that paper of the 5th inst.

The body of distinguished gentlemen composing the American Medical Association met in the lower hall of the Mechanics' Institute on Tuesday, May 4, at 11 o'clock, A.M., and immediately proceeded to attend to business. The rule of the association restricts the general business of the association to the morning sessions.

Dr. W. O. Baldwin, President, called the meeting to order, and the regular business proceeded. The ex-Presidents of the Association were invited to seats beside the presiding officer. A special invitation was extended to Dr. Warren Stone, of New Orleans, as being one of the most distinguished gentlemen present, and the request was acceded to. Dr. Lopez, an ex-Vice President, was also invited and took his place on the stand.

The meeting was opened with prayer by Rev. Mr. Galleher, of Trinity Church.

Dr. T. G. Richardson, of New Orleans, followed with an address of welcome to the gentlemen of the Association. The address complimented the members on their advances in the science of medicine, surgery, and the general branches incidental to the profession. He paid a pleasant tribute to the amity which is cultivated in this Association. His reference to the general community of interest which binds the members together from all sections of the land, which knows no political differences, and to the stores of our South, with its great floral and medicinal treasures, &c., was received with much applause.

The President announced the programme for the day's proceedings. The committees on surgery and anatomy were appointed to meet in the University Building; on meteorology, medical topography and epidemic diseases, in the Hall of Mechanic's Institute, at 3 P.M.

The nomination of members, by invitation, was pronounced by the President.

The usual annual address followed. This was delivered by the President, Dr. W. O. Baldwin. The address was of a very polished character, filled with references to the excellence of the profession, and the ameni-

ties and courtesies which make it great and noble. Referring to the unity of its interests and aims which keep its members from animosities and sectional differences, he paid a special tribute to the principles which actuate the members of the profession, regardless of aught but humanity and duty. He referred to the sympathies which bound them together in the bonds of a great brotherhood that knew no disruption of its Catholic spirit, during the sorrowful days of war and battle. Amid the shock of arms they stood above the differences that terrified the world with its horrors, the members of the association practising the duties and charities that have ever made the brotherhood noble in all its endurance and christian practices. The remarks were received with much applause and listened to with profound attention.

Among the members and visitors present, we noticed some of the most celebrated and distinguished gentlemen of the profession in the country. Prominent among these loomed up a head taller than those that stood about him—the towering form of Dr. Warren Stone, of our city. The giant intellect of this celebrated man has made a name in the annals of surgery in the South, which is so well known, and has such a wide reputation, that it is impossible for our poor words to add a sentence to the record of his fame.

We also noticed the presence of Dr. H. M. Skillman, of Lexington, Ky.; Dr. Alden March, of Albany, N. Y.; Dr. J. C. Hupp, of Wheeling, Va.; Dr. Thomas McKennan, of Washington, Pa., and many others of note and repute in the profession.

The President referred to a question concerning a change in the system of medical education, which especially claims the attention of the profession as well as the public. The lax method of turning loose on defenceless communities, illy instructed and incompetent physicians, demands a radical change. The system of cheapening the profession and lowering the standard that should be required for excellence and competency, demands careful attention, and is suggestive of prompt and decided action in correcting the system, so that incompetency may no longer rival the worth that opposes intelligence to quackery and ignorance. It is greatly to be hoped that prompt and effective measures may be taken to correct these abuses, that are so greatly calculated to lower the profession, and lessen its influence for good. His reference to books also suggests the idea of too much writing in the profession. The truth is, that the fancy

theories of ambitious writers are too numerous for present use. Altogether, the present system calls loudly for radical change, and we present the eminent gentleman's opinion, hoping it may prove effective in influencing the desirable result.

The assemblage of the Association on their twentieth annual session presented an appearance which comprehends vast intelligence and worth in the profession. The general physiognomy is suggestive of native talent and extensive culture, and almost every individual has marked features that attracts more than ordinary attention. The evident student appearance of the mass indicates that each individual is a man of prominence of either a general or local character. The temptation to individualize is very great, but where there are so many notable names of gentlemen who are prominent in the profession, it would be invidious to attempt the task and leave out any one of the members.

It seldom occurs in the sessions of deliberative bodies which sit in our city, that such profound attention, or such warm energy is elicited, as is exhibited on the part of this intelligent assembly of medical gentlemen.

A feature, which the President referred to regarding a change in the manner of schooling and graduating medical *alumni*, suggests that Federal legislation be invoked to change the present reckless system. The Association evidently was in accord with the proposition to secure governmental interference in lending aid in effecting so desirable a change.

The present facilities, which permit ignorant pretension to assume position in the profession, can only be remedied by the interposition of national legislation, and to it we look eagerly and anxiously for redress and change. How much the community should be interested in securing safeguards in this particular must be recognized by everybody who gives the matter a moment's thought.

A recess of five minutes was proposed, and acceded to by the convention immediately after the close of the able and comprehensive address of the President.

After the meeting was called to order, the letters of absent members were read by the Secretary, Dr. W. B. Atkinson. The letter of Dr. S. D. Gross, of Philadelphia, was first in order. Its broad, catholic and kindly spirit was very handsomely received and applauded. A number of others followed, and all breathed a warm spirit of social amity, as well as devotion to the in-

terests and effectiveness of the convention.

Reports of committees on regularly appointed subjects were called for. Some additions and changes were made to committees. Dr. Antisell was added to committee on cultivation of the cinchona tree.

Several committees failed to report on the special themes which they were appointed to investigate.

On nurse training institutions, Dr. S. D. Gross, of Pa., reported a paper which was referred to committee on practice of medicine.

On commissioners to aid in trials, involving scientific testimony, reported by Dr. John Ordronaux, N. Y.; the paper was referred to committee on medical jurisprudence.

On devising a plan for the relief of widows and orphans of medical men, a paper reported by Dr. John C. Griscom, of New York, was read, proposing a life insurance system, comprehending the mutual life plan. Several other propositions were announced. A peculiar feature was stated to be the fact, that in cities like New York the percentage of life was much more largely in favor of practising physicians than any other class of persons who are engaged in business pursuits. Report adopted for publication.

On Annual Medical Register, a debate occurred with regard to its feasibility and expense. Dr. Packard reported its publication impossible for want of funds.

The Association accepted report of Dr. Mussey, of Cincinnati, Ohio, which proposed that each State Society be requested to furnish a list of its regular practitioners. Accepted and engrossed.

On the best report of treatment for the different forms of cleft palate, by Dr. J. R. Whitehead, of New York. Referred to Surgical Committee.

On medical ethics, reported by Dr. D. F. Condie, of Pennsylvania. Read and received for publication.

The announcement that a meeting of editors of medical journals will be held this morning at 9 o'clock, in the office of Dr. Mitchell, No. 1 Carondelet street, on important business, was changed to the Hall of Mechanics' Institute.

A number of volunteer essays for prizes were accepted and referred to the sections to which they properly belong for disposition.

Report of committee of last year on amendments, was specially referred, to report this morning at 10 o'clock.

Recommendation of Cincinnati Medical Association to appoint certain committees, was adopted.

Received from Waco (Texas) Medical Society, and the Cincinnati Academy of Medicine, communications proposing reforms in the system of medical schooling, and establishing a better standard. Referred to regular committees of the proper sections.

Dr. Paul F. Eve proposed a motion to adjourn until 9 o'clock this Wednesday morning. Adjourned.

*The Reception.*—Last night, the delegates had a formal reception in the small hall of the Mechanic's Institute, on which occasion a collation was bountifully provided for the guests, of whom there were a very large number present. A large supply of strawberries and ice cream was disposed of with great enjoyment, especially by those of our visitors from Northern latitudes, to whom these would have been a rarity at home for a month or more to come. The honors were gracefully paid to the guests by the gentlemen of the reception committee and the citizens who were present.

A considerable number of ladies were also present, and graced the pleasant scene with their countenance. These were especially toasted and received due attention from the members.

The assemblage comprised a much larger number of the profession than were present at the session of the convention, which assembled to attend to business yesterday. Festivities are, doubtless, ever more agreeable than dry details of reports and business.

#### SECOND DAY'S PROCEEDINGS.

(From the New Orleans Picayune of May 6th.)

The attendance yesterday was much larger than on the first day. A number of arrivals had increased the *personnel* of the Association to near three hundred. The hall was well filled; and the same dignified deportment which had marked the deliberations of the members on the opening day was displayed on the second day. Besides this, the individual members having become better acquainted with one another, and with parliamentary forms, went more briskly to work, and covered a larger ground of practical debate. Much of the facility with which the deliberations were conducted yesterday, and the promptness with which action was taken upon the various resolutions, was, undoubtedly, due to the tact and practical administrative knowledge displayed by President Baldwin.

At 9, A.M., Dr. W. O. Baldwin, the President, in the chair, called the meeting to order. The reading of the minutes having

been dispensed with, Dr. Richardson, Chairman of the Committee of Arrangements, presented the names of the following candidates for admission, by invitation, to the Association, who were duly elected:—

Dr. Jas. E. Morris, New Iberia, La.; Drs. Wm. H. Watkins, John M. Cullen, Charles H. Kelly, S. R. Hurd, C. J. Beckham, P. B. McKelvey, Wm. G. Austin, J. Bensadon, O. Anfonx, H. D. Schmidt, Fr. Loeber, S. A. Smith, of New Orleans; L. L. Henry, Henderson McFarland, J. S. Bacon, of Mississippi; Dr. C. Tucker, of Danville, Ky.; and Drs. Florence O'Donnoghue and John F. Randolph, of the U. S. A.

A paper on "Canula and the New Mode of applying Ligatures," was submitted by Dr. P. F. Eve (Tenn.), and was referred to the Section on Surgery.

Dr. J. M. Bush, of Kentucky, offered the following resolution:—

*Resolved*, That a committee of five members be appointed by the chair, to take into consideration the subjects alluded to in the President's address, and report at this meeting.

This resolution having been adopted, the President selected as members of the committee Dr. Parvin of Indiana, Chairman; Dr. Toner of the District of Columbia, Dr. Pollock of Pennsylvania, Dr. Welch of Texas, Dr. Seeley of Alabama.

Dr. McPheeters, of Missouri, offered a communication from the Medical Society of that State, in reference to medical education.

On motion of Dr. Toner, District of Columbia, it was referred to the special committee on that subject.

Dr. Eve offered the minutes of the Medical Society of Tennessee, which was similarly referred.

Dr. Gaillard, of Kentucky, offered the following preamble and resolutions, which were referred to the same committee:—

WHEREAS, The medical teachers of America have, after a trial of twenty-two years, failed to meet satisfactorily and efficiently the requirements of the great body of the profession in regard to medical education; and

Whereas, the condition of the profession is yearly becoming more deplorable on account of the antagonistic and objectionable policy of medical schools in making the amount of fees charged, rather than a successful teaching, the basis of competition; and

Whereas, to obtain professionally competent graduates, sound and efficient teachers are indispensably necessary; and

Whereas, such teachers, to be found throughout the country, cannot be induced to leave their homes without assurance of competent remuneration; and

Whereas, such remuneration can only be obtained by adequate fees charged, unless by a system of low fees the number of students be relied upon to make up the inevitable pecuniary deficiency; and

Whereas, reliance upon numbers of students for this purpose deplorably crowds the already overcrowded professional field, diminishing thereby individual income, judgment, experience and skill, thereby compelling practitioners to resort to other avocations as a source of supplemental income; and

Whereas, this devotion to other pursuits destroys opportunities for study and improvement, degrading thereby the status and standard of American physicians; and

Whereas, the schools of New England, New York, Pennsylvania, Maryland, Virginia, South Carolina, Georgia, Alabama, Texas, Tennessee and the District of Columbia now charge comparatively remunerative fees; and

Whereas, the low system of fees is charged only in a few of the Middle States, and can with advantage be made to conform to the rate of fees charged elsewhere; and

Whereas, it is as unethical for colleges to underbid each other pecuniarily as for practitioners to do so:—

*Resolved*, That hereafter no medical school in this country, other than those fully endowed, be entitled to representation in this Association, if the amount charged by such schools for a single course of regular lectures be less than one hundred and forty dollars.

*Resolved*, That all schools charging less than this sum are earnestly requested by this Association to advance their rate of fees to the amount mentioned.

The report of Dr. Lee, of New York, the delegate to the Association of Superintendents of Insane Asylums, was offered and referred to the Section on Psychology.

The report of Dr. Gross, of Pennsylvania, delegate to Foreign Medical Association, together with the letter to Dr. Ehrenberg, was read and referred to the Committee of Publication.

The time having arrived for consideration of the revision of plan of organization, it was, on motion, taken up, and certain changes were adopted.

A recess was taken to allow the selection of members of the Committee on Nominations.

On reassembling, the Permanent Secretary announced the following as the Committee on Nominations:—New York, J. C. Smith; Delaware, H. F. Askew; Pennsylvania, A. M. Pollack; Kentucky, H. M. Skillman; Tennessee, J. B. Lindsley; Mississippi, W. Y. Gadbury; Alabama, J. Cockran; Ohio, J. No. Townsend; Indiana, B. S. Woodworth; Illinois, T. D. Fitch; Wisconsin, H. Van Dusen; Missouri, J. S. Moore; Michigan, J. B. White; Georgia, R. D. Arnold; Louisiana, S. Logan; Texas, S. M. Welch; Minnesota, C. N. Hewitt; Arkansas, R. G. Jennings; West Virginia, W. J. Bates; Rhode Island, G. L. Collins; District of Columbia, L. W. Ritchie; United States Army, J. J. Woodward; United States Navy, F. E. Potter.

Dr. Chaille, of Louisiana, submitted a proposition for a common medical nomenclature in the United States, taking as a model an official publication on the subject by the Royal College of Physicians of London, and offered the following resolutions, which were adopted:

*Resolved*, That a committee of five be appointed by the President, to report, as soon as practicable, to the present session of this Association, upon the following:

1. The propriety of adopting, and using its influence to have adopted, by the entire medical profession in the United States, the provisional "Nomenclature of Diseases of the Royal College of Physicians."

2. On the practicability of having this nomenclature published in such manner as may render it easily and cheaply accessible to every member of the profession.

3. To recommend such other practical measures for the action of this Association as may be necessary to introduce this nomenclature into official (military, naval, &c.) and general use.

The Chair appointed the following gentlemen as the committee: Drs. Woodward, U. S. A., Heustis, of Alabama, F. G. Smith, of Pennsylvania, and Chaille, of Louisiana.

The reports of the Committee of Publication, and the Treasurer, were read, accepted, and referred to the Committee of Publication.

On motion the Committee on Nominations were permitted to retire for consultation.

The special order for 12 being the report on Specialists, it was read by the Secretary, and, on motion of Dr. Sayre, the resolutions were adopted and the report referred to the Committee of Publication.

[To be continued.]

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, MAY 20, 1869.

[VOL. III.—No. 16.]

## Original Communications.

### CASE OF EMBOLISM OF THE EXTERNAL ILIAC, FOLLOWED BY GANGRENE, LOSS OF LEG BELOW THE KNEE, AND RECOVERY.

Read before the Boston Society for Medical Improvement May 10th, 1869, by GEO. H. LYMAN, M.D.

On the 28th of Dec., 1868, I was requested to see Dr. —, a professional gentleman of this city, 63 years of age. I found him suffering apparently from a slight but decided attack of pleuritis. The only unusual symptom was an irregularly intermittent pulse, the intermissions generally occurring once in five or six beats, with occasionally the lapse of a minute or more with no intermission. Careful auscultation revealed nothing abnormal in the cardiac impulse or sounds; cough moderate—no dyspnoea when quiet. His chief complaint was of severe pain in the right hypochondrium, and this was greatly aggravated by movement or full inspiration. My notes of the case continue as follows:

29th.—Cough has been slightly tinged with blood. Has suffered much annoyance during past 24 hours from cold perspiration.

30th.—At the bottom of the right pleura posteriorly there is marked dullness on percussion, and decided diminution of vesicular respiration. The eighth day, i. e. Jan. 5th, 1869, the patient was reported as convalescent, being free from pain and in every respect comfortable. The treatment, it may be added, consisted of rest in bed, warm fomentations and moderate opiates.

At 3 o'clock on the following morning, Jan. 6th, I was summoned again in haste, with the statement that a shock of paralysis had occurred. On examination I found entire loss of motion and nearly complete loss of sensation in the foot and leg to within a few inches of the knee, with marked diminution of temperature in the affected parts—pulsation perceptible in the anterior tibial—some pain in the calf of the leg, but this last, it is noteworthy, was not an urgent symptom unless the limb was moved.

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Pressure and the application of a hot sponge to the spine, revealed decided tenderness about the lower lumbar vertebræ. There was some contraction of the pupils and very perceptible mental confusion, as if under the influence of an opiate. Upon inquiry it was found that one-half an ounce of tinct. of opium had been taken in divided doses during the night for the relief of the pain.

In connection with this state of things it should be here observed that the patient had been in Europe from September, 1867, to November, 1868, and that in Dresden, in November, 1867, he had an obscure attack of pain in the back, with loss of power in the right leg, lasting some ten days. There was also considerable swelling, which with the pain continued for months, and recovery was not complete for a year.

It should also be noted that many years since he was under the charge of the late Dr. James Jackson, for some obscure but painful spinal disorder resulting from a sprain, and which it was feared at the time might eventually terminate in paralysis.

6, P.M.—He complains of increased pain in the limb during the day. Temperature of the foot about the same. Pulse still felt in the anterior tibial.

7th.—Has passed a restless night, with great pain, or, as he calls it, an indescribably distressing feeling of bursting or weight in the foot and calf. There is now also extreme tenderness over the course of the vessels as far as the groin, with discoloration especially marked about the nails. No pulsation to be felt below the left common iliac.

8th.—The discoloration and coldness now extend to within a few inches of the knee, the color varying from the dark purple about the toes, mottled dark yellow about the instep and ankle, fading gradually to the above point, to which the loss of sensation was traced at first. Here a faint red line, extending irregularly around the limb, forms the present limit of the disease. Below this the prick of a pin is not felt unless perhaps, doubtfully, over the instep and some parts of the tibia.

[WHOLE No. 2151.]

9th.—Pulse 104. It has varied heretofore from 84 to 90. He was moved yesterday three miles into the country.

10th.—There is some modification of the temperature, the dorsum and inner aspect of the foot being less cold.

11th.—The dorsum and inside of the foot are of nearly natural temperature. The track of the vessels in the thigh is still tender, but less so. Pulse 76 and good. To this date the treatment has consisted of anodynes, of which ten drops of the liquid extract of opium sufficed to quiet pain and restlessness, enemata and small doses of comp. cathartic pill; for the past four days belladonna and ergot have been given. The foot has been surrounded by dry warmth.

12th.—Had a restless night, with mutterings in the sleep, and a tendency to subsultus. Pulse 104. He is evidently much more feeble. Less warmth of instep than yesterday, but still it is not cold, like the rest of the limb. The prick of a pin is decidedly perceptible over the lower end of the metacarpal bones. He was ordered milk punch and concentrated broths, as much as could be relished.

13th.—To-day there is unmistakable pulsation in the femoral artery, below Poupart's ligament, but very feeble, and not synchronous with the heart pulsations, there being but 20 beats in a minute, the latter being 84. The following day this femoral pulse was more difficult of recognition, though still perceptible.

15th.—The femoral pulse has wholly disappeared. Large bulke filled with discolored serum have arisen over the upper part of the gastrocnemius. Pulse 104, and more feeble. Stimulus to be increased.

25th.—Has continued much the same during the past ten days. The shrivelling and discoloration have increased over the foot, which is now dry and black to the ankle. The whole surface of the leg is dark and vesicated, discharging freely of bloody serum, not particularly offensive. Ulceration has commenced at the line of demarcation. Some suspicious spots, livid and tender on pressure, have appeared over the patella.

27th.—During the past forty-eight hours there has been severe pain in the lower part of the rectum, with loss of power over the anal sphincter, and the result of this want of control is the occasion of constant discomfort and annoyance. The tenesmus is extreme, with the feeling of some foreign body in the rectum. Nothing discoverable

upon examination. Pulse 112. The patient is much prostrated, and his general appearance decidedly less favorable, though he remains tranquil and confident in what he calls "his reserved stock of vital force." The pain and tenderness over the track of the vessels in the thigh have nearly disappeared, though a tender mass of induration still remains below Poupart's ligament, and in the popliteal space. The spots upon the patella have diminished.

Feb. 4.—The tissues of the leg are becoming more black and dry until near the line of demarcation, where they are decidedly pulsatious and extremely offensive. Suffers still severely from pain in the rectum above the sphincter during his evacuations, which are now, however, not so constant. During the past twenty-four hours the restlessness and want of sleep have been marked. He takes the liquid extract of opium in varying quantities from 40 to 70 drops. General aspect less favorable. The nourishment and stimulus are continued as largely as the stomach will bear. For the first time seems discouraged and depressed. Directed the opiate to be increased sufficiently to quiet the restlessness.

6th.—Pulse 84. Has taken 150 drops of the opiate in 24 hours. Shows some disinclination for food.

13th.—The loss of appetite fortunately proved to be but temporary. During the week has taken largely of beef tea, eggs, porter and rum, with from 150 to 180 drops of the opiate daily. His digestion remains as from the beginning, perfect, but his strength is less. The fecal evacuations continue troublesome at times. The ulcerative process has extended to the fascia all around the limb, which is enveloped at this point in a charcoal poultice. Carbolic acid, chlorinated soda, &c. &c., are freely used, but nothing avails to subdue the odor, which is extremely offensive and permeates everything.

18th.—The line of separation is rapidly deepening posteriorly. Pulse 86 and digestion good, but he still loses strength. Requires 200 to 300 drops of the opiate daily.

Mar. 1.—The tibia is now felt posteriorly between the muscles. The dead tissues are broken down and rapidly separating. Paralysis of the anal sphincter continues to cause extreme annoyance. Some low delirium during sleep and at first waking. Perspiration abundant also at those periods. Pulse 90 and fair in strength, but on the whole he is not so strong as a fortnight since. A small, oblong gangrenous patch,



involving the thickness of the skin, has appeared on the outer thigh, four inches above the knee.

9th.—The upper part of the diseased portion being completely pultaceous and intolerably offensive, the bones were divided six inches below the patella, so as to avoid any possible interference with the sound tissues. The spot upon the thigh is cicatrizing, and looks as though cut out with a punch.

12th.—The removal of the limb has proved beneficial in every way, improving the atmosphere, disposing of an awkward weight, and facilitating the application of dressings. The sloughy mass remaining in the centre of the stump and penetrating it irregularly, is rapidly melting away, leaving healthy granulations behind. Substituted to-day for the poultice a dressing of earth. The fecal evacuations are becoming less unmanageable, occurring with tolerable regularity once in two days only. Requires about 320 drops of the opiate in 24 hours. The attendant has standing directions to give enough to remove restlessness and the sense of prostration. On one occasion, a few days since, four ounces was needed in the 24 hours to secure this result, and the following day he was in every respect more comfortable.

18th.—Improved daily until yesterday, but has had a wretched night, with restlessness and constant hicough, and he is threatened also with a bed sore upon the sacrum. Pulse 90 only and fair. Insisted upon the liquid opium to the extent of 6 oz. (by measure) in the last 20 hours. Ordered chloric ether and camphor, with an increase of the bark and wine. There is but little diseased tissue remaining. The earth dressing is very satisfactory, but from the nature of the surface it is difficult to apply without too much weight. The parts have retracted and the edges are rapidly drawing in, leaving the bones protruding 2 or 3 inches.

20th.—Has taken 5 ounces of opiate in last 24 hours. The hicough ceased yesterday, and the bed-sore is less threatening. Has resumed the charcoal dressing as more convenient. There is a marvellous improvement in his general appearance and strength. Begins to recover some control over the paralyzed sphincter. Has been lifted into a wheel chair for a short time without excessive fatigue.

29th.—The stump is wholly free from gangrene, and union is now prevented only by the protruding bones. Has comfortable nights, and steadily gains in strength. Has been several times in wheel chair with

advantage. He still requires  $2\frac{1}{2}$  drachms of liquid opium every four hours, night and day, and occasionally an extra dose is required. Attempts made to diminish the quantity are always followed by restlessness and prostration.

April 2.—Have succeeded in reducing the opiate to  $\frac{3}{4}$  iss. per day. Complains a little of dyspepsia, but is decidedly stronger. Gets to his chair with facility. I advised to diminish the amount of liquid food taken.

9th.—Steadily improving. Has been unable during the week to reduce the opiate. He declines, and, as I think, wisely, any operative interference for the present with the protruding bones, though but for them the wound would close immediately. An irregular flap of skin extends over the front of the tibia, but its fibular surface is denuded  $3\frac{1}{4}$  inches.

19th.—The opiate has been gradually reduced to six drachms in the 24 hours. Has recovered his control over the sphincter.

May 2.—The opiate is now reduced to four drachms, distributed through the 24 hours. Under the use of bark and pyrophosphate of iron is steadily gaining in strength, and with the aid of crutches or chair he is able to move about without much difficulty.

Daily details of treatment have seemed unnecessary. From the commencement the manifest indications were to sustain the strength and use no medication which should cause even temporarily any disturbance of the digestive organs when possible to avoid it. The necessity for anodynes originated with the disease. At first mild laxatives were required, and belladonna and ergot were employed for a short period, but probably with little or no influence upon the result, for all that part of the limb ultimately lost was really dead within forty-eight hours of the attack, and the limit then attained was never exceeded. Enemata, ether, camphor, sulph. acid, &c., were used as required to meet different indications, and dry warmth was kept constantly applied to both limbs. Large quantities of strong tincture of bark were taken throughout the whole period, about 8 ounces daily of old Medford rum, and as much strong beef tea as could be assimilated. So far as any drug influenced the result, opium seems to me to have been the most effective. Beginning early with only 10 drops of the liquid extract,\* which at that time was sufficient to produce a decided anodyne effect, at the

\* Prepared by Smith and Melvin, and of the full strength of the official tinct. of opii, equivalent to 4 grs. of morphine to the fluid ounce.

end of a month (Feb. 6th) 150 to 180 drops daily were used, and from that time the quantity had to be rapidly increased, until in the middle of March we find that 4 ounces were used in one day, at another time 6 ounces. During the last month the usual dose was from 2 to 3 drachms every 4 hours, and nothing less than that sufficed to keep the pulse strong. (It should be mentioned here that the patient had never been in the habit of using opium in any form.)

The remarkable effect of opium upon the vital powers, stimulating the heart and giving tone to the capillaries, especially in advanced life, is well known, and the remark attributed to Sir Benj. Brodie, that the difference between recovery and a fatal result in cases of this form of gangrene of the extremities depends upon the toleration by the patient of opium, receives additional confirmation by the details of this case. With every increase of the dose there was an evident amelioration of the restlessness and prostration. Another marked feature was the absence of any gastric disturbance. Though the amount of food and stimulants taken was unusually great, after the first week the assimilative processes were never disordered, the digestive functions being as regular and natural as in perfect health.

With regard to the earth dressing, I think it would have been of advantage, if used earlier, in removing fætor and stimulating the ulcerative process; and were a similar case to occur to me, I should keep the soft parts at the line of demarcation buried in dry earth from the beginning. The practice is a novel one in this vicinity, and my attention was not called to it until late in the case. It has been used extensively by Dr. Hewson, of Philadelphia, who states that he has "had extraordinary success with it, even as a primary dressing in amputations and other major operations."\*

Arrest of the circulation, resulting in that form of gangrene exhibited in this case, may be induced by various pathological causes, viz.: the obstruction may arise in a perfectly healthy vessel from a fibrinous mass originating at some distant point, as when a vegetation is dislodged from the cardiac valves, or a clot from diseased aorta, or from blood poisoning, or it may be caused by a narrowing of the vessel at the point obstructed, as by the pressure of a tumor, by arteritis, atheroma, ossification,

rupture of the inner coats, &c. Indeed, any local disease or obstruction of an artery sufficient to diminish the blood-current without being in itself an immediate source of danger, may, after acute inflammation in some distant part, inducing hyperinosis, or that state of the blood in which the fibrin becomes relatively in excess, cause a separation of the fibrin from the current at the point of obstruction, until its accumulation closes the vessel, or becoming detached, is carried on to some subdivision too small to permit its further passage. It is also asserted by Mr. Bence Jones (*Med. Times and Gazette*, vol. i. 1866) that in diseased arteries, the diminished force of the blood-current beyond the point diseased may cause gangrene. In such a case, however, it is questionable whether the capillary obstruction is not due to minute particles of fibrin, rather than to diminished force of the current merely. Cruveilhier (*Anat. Pathol.*, tome ii. liv. 27) observes that ossification of the larger vessels may result in no obstruction, but that when it exists in the smaller vessels gangrene results, and he quotes Dupuytren's assertion that arteritis, when sufficiently severe to arrest the current entirely, is the most frequent cause of senile gangrene. He objects to Legroux's theory that the arteritis is not the cause of the clot, but is caused by it, adding that no sanguineous vessels are found in the lining membrane, the redness and apparent injection perceived being merely "coloration by impregnation." He acknowledges that the blood may be "the vehicle of the cause" of the inflammation, but that coagulation follows and does not precede the latter. In a valuable paper by Mr. Savory "on the local effects of blood poisoning in relation to embolism" (*St. Bartholomew's Hospital Reports*, vol. i. p. 107) a series of experiments are detailed, showing the effect of the injection of solid particles suspended in water, and of putrid fluids upon the capillary circulation; and though the subject of pyæmia is there more directly involved, still the analogy between arterial and capillary embolism is so obvious that a reference to the paper will be found interesting to any one investigating this subject.

The paper of Dr. Kirkes (*Med. Chir. Trans.*, vol. xxxv. p. 281) "on the effects resulting from the detachment of fibrinous deposits from the interior of the heart," also one by Mr. Tuffnell (*Dublin Quarterly Journal of Medical Sciences*, vol. xv. 1853, p. 371) "on the influence of vegetation on the valves of the heart in the production of secondary arterial disease," prove conclu-

\* In a note kindly sent me from Dr. Hewson in answer to some inquiries, he says:—"The kind of earth I have found answer best is that containing the most clay and least sand. It should be thoroughly dried and finely sifted," and "must be removed as soon as it becomes saturated."

sively that fatal obstruction may occur suddenly in perfectly healthy vessels.

Many cases, on the other hand, are reported where the obstruction was due to local causes. Among others Dr. Gordon (*Dublin Quarterly Journal Medical Sciences*, vol. xxxiii. 1862, p. 340) gives a case of extensive fatty degeneration in a boy only 14 years of age, the obstructed circulation resulting in death from gangrene. In this case, although the heart was unsound, the gangrene of the extremity was manifestly due to the atheromatous condition of the vessels.

A well reported typical case is also given by Mr. Annandale (*Edinburgh Medical Journal*, Apr., 1863, vol. viii. p. 904). Here the heart was perfectly healthy, but gangrene extending to the knee proved fatal. The obstruction was in the femoral artery, and caused by the detachment of a clot from above, the lower portion of the aorta being atheromatous, and containing adherent clots, the femoral at the point of obstruction being perfectly healthy. Appended to this case is a short summary of the views of various authors upon the mode of formation of the obstructing clot. A singular case of rupture of the inner and middle coats of the iliac in an atheromatous subject, is reported by Mr. Spence (*Edinburgh Medical Journal*, July, 1864, p. 7), in which the blood dissected its way upwards beneath the inner coat, instead of downwards in the direction of the current—resulting in closure of the vessel.

A series of instructive cases, illustrative of the different forms of arterial obstruction, is given by Prof. Simpson, of Edinburgh (*Obstetric Works*, vol. ii. p. 34).

The most extensive and satisfactory experiments upon the separation of fibrin that I have had access to are those of Mr. Richardson, in his "Essay on Coagulation of the Blood," London, 1858. He observes (p. 29) that "most writers are agreed that the fibrin is actually or relatively increased in acute inflammation; in pregnancy, in plethora, albuminuria, and in some instances where great loss of blood has taken place;" also—p. 35, "that in some cases where the blood-current is impeded, as in aneurism in the heart when the valves are rigid, or in very feeble states of the heart, the fibrin has a tendency to separate from the other blood constituents at the point of obstruction, and to form itself into distinct masses—fibrinous concretions." The result of his own labors and a review of the arguments and facts of a large number of authorities, is (p. 37) "1st, that the blood may, in

very rare instances, coagulate in the ordinary way, i. e., as a red clot, in the body during life; 2d, that the fibrin alone may separate in the form of concretions during life; this result being theoretically attributable, (a) to mere slowness of motion, as in aneurismal tumor, and as in some cases of slow deaths; (b) to absolute or relative increase of fibrin itself; (c) to a peculiar kind of coagulation arising from chemical or physical changes incident to the mixture of some poisons, as pus, with the blood; (d) to the neutralization of those alkaline constituents of the blood, which hold the fibrin in chemical solution, by some free acid, as lactic, generated in the body superabundantly; (e) to an extreme tenuity of the serum in which the fibrin is distributed, with a feeble resistance against the natural attraction of the molecules of the fibrin and their consequent aggregation; (f) to a supposed disorganization or disintegration of the blood, under the influence of certain diseases, as typhus and scurvy, whereby it has a tendency to divide into its constituent parts."

Of the diagnosis of gangrene from arterial obstruction, it may be said that in cases arising from the sudden impaction of a clot in the large vessels supplying the extremities, a very short time suffices to clear up any doubt, the death of the part being too evident to be long mistaken. The sudden loss of sensation and motion may at first sight lead one to suppose that it is paralysis from lesion of the nervous system with which he has to deal. Such was certainly my own impression with this patient at first view, and until at the succeeding visit the real nature of the case became apparent.

Cruveilhier's report of a similar experience (*Anat. Path.*, tome ii. liv. 27) is constantly alluded to by writers. He says: "It sometimes happens that complete paralysis of a member, with no discoloration of the skin, precedes by several days the physical signs of gangrene," followed by a detail of such a case occurring to himself. He lays stress upon the fact that in paralysis from obstruction the loss of sensation and motion is *complete*,\* which is rarely the case in paralysis from nerve lesion, and gives as other pathognomonic characters of the former, the pain, coldness, discoloration, cessation of pulsation, and tenderness

\* In my case there were parts of the limb in which the loss of sensation was not *complete* for many days, but the greater part was dead, as it were, from the beginning, and not merely partially benumbed, so that Cruveilhier's distinction between them doubtless holds good.

and hardness in the course of the vessels. He considers the extreme pain to be due not necessarily to inflammation, but to a kind of struggle between life and death in the parts deprived of their material of nutrition—"mais d'une sorte de lutte qui s'établit entre la vie et la mort dans les parties privées de leurs matériaux de nutrition."

Dr. Gordon (*loc. cit.*) considers the pain to be "caused in all probability by the excessive sudden distention of the coats of the artery behind the occlusion." Were this the case, however, we might expect pain at the seat of this distention. In his own case the obstruction was in the iliac, but the pain in the calf of the leg. In the case I report, no pain or tenderness was felt higher than the femoral, but in the leg only, and such is the history of most of the recorded cases. Another fact noticeable in my own case, and repeatedly alluded to by others, is that the pain was aggravated by any local disturbance from pressure or touch. No entirely satisfactory explanation of the cause of the pain has yet been given. An interesting discussion of this point may be found in the July number of the *Edinburgh Medical Journal*, 1864, p. 10.

Of the cause and exact nature and seat of the obstruction or embolus in the case now reported, the uncommon result in recovery leaves, happily, room for conjecture; but careful consideration of its history, the absence of any recognizable valvular lesion of the heart or ossification of the vessels, do not permit me to doubt that it was due either, 1st, to an atheromatous condition of the arteries and giving way of the inner coat at the point of obstruction; or, 2d, to fibrinous clot or embolus, the result of hyperinosis caused by the pleuritis which was immediately antecedent. The age of the patient, and the intermittent pulse, so indicative of weak muscular action of the heart and possibly incipient fatty degeneration of its tissues, might well be coincident with atheromatous disease of the vessels; also the previous attack in Dresden, which it now seems possible was due to partial suspension of the circulation in the right leg, and which was not preceded or accompanied by any marked febrile or inflammatory symptoms, would all point to the first of the causes indicated, while, on the other hand, the suddenness of the attack and the immediately preceding pleuritis—recognized by authors as one of the most frequent antecedents of embolus—both point to the latter supposition. However this may be, the seat of the obstruc-

tion appears to have been unquestionably in the external iliac, at or near its origin. If above that point, the gangrene would hardly have been limited to the parts below the knee. The temporary paralysis of the sphincter, confined possibly to its left half, may have been due to smaller particles of fibrin descending the internal iliac and occluding the hæmorrhoidal branches of that side.

The slight return for a few days of pulsation in the femoral, and also of warmth to the foot, have been noticed in a few other reported cases. The explanation is not clear, but the phenomena were probably due to some temporary softening or displacement of the obstructing body, or possibly enlargement of the artery itself, permitting for a short period the passage of an insufficient current of blood.

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#### ON PARALYSIS OF THE MOTOR NERVES OF THE EYE, WITH CASES OBSERVED IN THE CLINIQUE OF PROFESSOR VON GRAEFE.

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THE most frequent and prominent symptoms of paralysis of the ocular muscles are strabismus, diplopia, ptosis, mydriasis, impairment of accommodation and luscitas, presenting either separately or collectively the various conditions of that complex affection. Paralysis leads necessarily to material and functional changes in the muscular apparatus, which destroy the natural correspondence of the optic axes, the parallelism of the horizontal and vertical diameters and the coincidence of the centres of revolution of the two eyes, and thus give rise to strabismus and diplopia. But although strabismus forms invariably a very prominent symptom in the more advanced stages of paralytic disease, and although a very close causal connection exists between them, yet the former prevails independently of paralysis, inasmuch as it originates from a great many other causes—too numerous to specify here—such, for instance, as anomalies of refraction, incongruence of the two retinæ, opacities of the cornea and in the refractive media, intra-orbital tumors and abscesses, penetrating lesions, inflammation of the muscular apparatus, &c. If uncomplicated with faulty innervation, perverted nervous action, and all the like, if merely dependent on impaired functional capacity, insufficiency and structural disorders, then it must be distinguished from the form connected with

and owing to paralysis of the muscles. In pure concomitant strabismus, where the motor nerves are perfectly intact, and where no secondary atrophy has taken place in the muscles at fault, the deformed eye accompanies all the movements of its partner; not so in paralytic strabismus, where the mobility of the affected eye is impaired in proportion to the intensity and extensive nature of the disease. Although both are equally characterized by loss of the natural correspondence of the optic axes, the deviation in the former is nearly constant, and the bulbi themselves are but little restrained in their associated movements, while in the latter the deviation changes according to the degree of the paralysis, and the eye, being impaired in its excursive capacity, remains fixed more or less immovably in one direction. In pure strabismus the primary deviation of the squinting eye is as great as the secondary of its sound associate, or, in other words, the primary and secondary strabismic angles are the same; in paralytic strabismus, on the contrary, the secondary deviation of the healthy eye is much greater than the primary of the one affected, and the sum of mobility of both bulbi is not the same, but decreased in the diseased eye towards the paralyzed muscle. Want of harmony in the movements of the eyes is the chief characteristic of the former; loss of motion distinguishes the latter.

The complication with binocular diplopia is, under ordinary circumstances, an exception in pure strabismus, for the reason that the false image is usually suppressed or rather unnoticed, by the patient giving his undivided attention to the sensations of the healthy eye; the impressions on this being much more vivid, the mind perceives the stronger to the exclusion of the weaker. Although diplopia arises from various causes, the proximate cause is most frequently paralysis of some one or more of the muscles of the eyeball; and in paralytic disease of the motor apparatus it plays indeed a very important part, being one of the most, if not the most, conspicuous and troublesome symptoms. Diplopia does not take place in all parts of the visual field, but is confined to the path of the paralyzed muscle; and its greater or less extent, although chiefly dependent on the amount of paralysis present, varies with the influence of other very important conditions, such as the capacity of fusion, the power of accommodation, the refractive state of the eye, &c. As at times the deviation of the axes and diameters of the

eyes is caused only by an adjustment for certain distances and in particular directions, so does diplopia in such cases become manifest only when the patient looks at those distances and in those directions; and the double images will appear either homonymous or crossed, according as there is a pathological convergence or divergence of the visual axes. The relative situation and position of the double images most generally indicate the seat of the affection, and the greater the distance between them the more decided is the paralysis. Whenever the difference in the distance of separation of the double images is found equal and constant, the diplopia is not due to paralysis; that alone causing the discrepancies in their relative distance from each other. (*Die Differenz der Drehungsbögen und Willenskkräfte ist bedingt durch Lähmung.*—v. Graefe.)

The binocular double vision, which originates from muscular and nervous derangements and attends pure and paralytic strabismus, must be distinguished from the monocular diplopia and polyopia, owing to disorders in the dioptric organs and frequently accompanying ametropia and irregular astigmatism; they are mere circles of dispersion, and easily corrected by spherical and cylindrical glasses, or a combination of both, according to the nature of the anomaly of refraction.

Paralysis of the muscle supplied by the abducens, or the rectus externus, is marked by a more or less complete incapacity of the bulbus to be turned outwards; by homonymous, horizontal double images, which become more separated from each other the more the eye is turned in the direction of the paralyzed muscle, and which diverge obliquely upwards as the eye is directed outwards and upwards. In order to avoid the troublesome double vision, patients turn the head towards the side of the affected externus muscle, and thus get the object in a relatively favorable situation for the adjustment of both eyes.

Paralysis of the muscle supplied by the trochlear nerve, or the superior oblique, is characterized by homonymous double images, confined to the lower field of vision, and becoming further separated from each other in the vertical meridian the more the eye is directed downwards. The two images converge upwards and grow more oblique if the object be moved towards the affected eye; the vertical distances of separation, on the contrary, decrease in the direction of the affected side and increase towards the sound eye. The

false image appears nearer and below the true one, only on looking very much downwards, it stands higher.

In paralysis of the muscles supplied by the oculomotor nerve, viz., the internal, superior and inferior recti, the inferior oblique, the levator palpebrae superioris, the ciliary fibres of the iris and the ciliary muscle, the symptoms vary very much according to the degree and extent of the affection. If the paralysis is complete, ptosis of the upper eyelid, and for the most part, too, a slight prominence and eversion of the bulbus become apparent. The mobility of the eyeball is normal in the horizontal equator, on account of the healthy externus, and outwards and downwards in the path of the sound trochlear muscle, but in all other directions either restrained or wholly lost. With the exception of the regions just named, diplopia takes place in all parts of the visual field; crossed double images—the illusory higher—which converge upwards and appear with the upper end nearer to the eye. The lateral distance of separation of the images increases with the amount of deviation of the object towards the healthy eye, but the difference in their attitudes augments with the movement of the object above the horizontal *equator*, and decreases as it descends below it. The obliqueness of the images is greater above than below, and reaches its maximum when the eye is directed upwards and outwards. The rigidity, immobility, and moderate dilatation of the pupil point to a paralytic condition of the sphincter, or circular fibres of the iris, while the impairment or loss of accommodation indicates that the ciliary muscle, or tensor choroideae, is also implicated. . . . .

With the loss of their contractile power and the cessation of their functions, mydriasis and paralysis of the accommodation ensue; the range of the latter indicates to what extent the tensor choroideae, as Brücke has styled it, is involved, and the smaller it is found the more developed is the paralysis. Another quite frequent and distressing symptom in paralysis of the muscles, supplied by the third nerve, is vertigo, which patients try to avoid by looking and leaning the head to the non-affected side.

Paralysis of the ocular muscles, almost always a mere symptom in various morbid conditions, originates from causes that are either of central or peripheral, of constitutional or local nature. Basilar meningitis, cerebral neoplasms, cranial periostitis, intraorbital abscesses and tumors, spinal disease, rheumatic inflammation of the nerve-

sheaths, syphilitic cachexia, circulatory disorders, mechanical lesions of the motor nerves, &c., are among its chief causes; but it would lead us too far, to dwell at length on the various combinations of that complex affection, their characteristics and differential diagnosis, and this bare enumeration must therefore suffice—with a few accompanying remarks only.

The paralytic disease may be confined to a single muscle, or may attack several, more or less completely, at the same time; it may furthermore be limited to the boundaries of the nerves, supplying the muscles of the eyeball, or be complicated with a similar affection of the facialis, trigeminus, &c., and it is obvious that all these various conditions depend solely on the relative seat and extent of the primary cause. A complete paralysis is usually peripheral, and although partial ones may be also of the same character, they are much oftener of central origin—in that case not all the nerve-fibres becoming involved. Those forms, therefore, which precede or accompany cerebral and spinal disease, are easily distinguished from the simple rheumatic and traumatic by the fact that the latter are invariably more constant and complete. Among the former deserves especial mention the paralysis attending locomotor ataxia, of which it forms one of the first and most essential symptoms. The later stages of that insidious malady are marked by a total paralysis of the third pair, in consequence of degeneration of the nerve-fibres; but this grave complication must be distinguished from the ephemeral paralytic affection of the abducens in the initiatory stage. It appears at first as pure diplopia only, which vanishes sometimes very rapidly, and is later followed by symptoms of a more decided palsy.

The course and termination of any paralytic disease involving the muscular apparatus of the eye depend chiefly on the nature of the pathogenetic cause, on the presence or absence of complications and the degree and duration of the affection. Peripheral cases, due to rheumatic inflammation of the nerve-sheaths and other acute morbid processes, arise suddenly and develop often in the course of a few hours; while those of central origin, owing to organic disease of the brain and spine, to constitutional cachexia and disorders of the circulation, progress slowly and insidiously, and are usually marked by a periodical, intermittent type of symptoms, which exhibit a continuous succession of paroxysms and remissions, until they assume at last a

stationary character. Recent attacks, or such as have lasted but a short time and are uncomplicated with organic disease and secondary affections—strabismus, atrophy, &c.—allow a favorable prognosis, and we often notice in such cases not only a speedy improvement after proper treatment, but also a spontaneous *restitutio ad integrum*. In the chronic forms, on the contrary, the prognosis is altogether unfavorable; for, not to speak of the incurability of the originating affection, the paralysis itself, bound to morbid conditions that have become inveterate and intractable, evinces very little inclination to retrograde, and leads most frequently to serious secondary troubles and changes, such as diplopia, vertigo, strabismus, amblyopia ex anopsia and total degeneration of the implicated nerves and muscles.

In congenital paralysis of any ocular muscle, owing to innate central disease, hereditary syphilis, &c., the prognosis is also very unfavorable, for even after the primary, constitutional disorder be no longer in operation and wholly obliterated, the morbid changes in the affected parts will strenuously oppose all efforts to remedy the resulting paralysis.

The treatment must in all cases be directed, first and foremost, against the originating disease—that has produced the paralysis and is maintaining it—and only after the pathogenetic causes have been removed, or their injurious influence reduced, and the paralytic symptoms still prevail, the direct, mechanical and operative methods of treatment are indicated.

In cases of recent origin, topical abstractions of blood, antiphlogistic, emollient, derivative and revulsive remedies may be employed with advantage against the exciting cause still in operation. When they are more advanced, alteratives, such as mercury, especially in the form of inunctions, and iodide of potassium, are apt to aid in the resorption of exudations, even though not of a specific character, and to exert a favorable influence upon the course and termination of the affection. If all these remedies prove of no avail, and the paralysis remains unyielding, the application of electricity, either in the form of Faradization or the galvanic current, is advisable; the latter is by far the more preferable, and proves of decided value in a great number of cases. Always beneficial in paralysis with a rheumatic basis, it produces often a curative action even in cases where the primary, intracranial affection still exists, and is beyond the reach of any improvement. But in or-

der that the greatest possible benefit be obtained, the galvanic current should be applied to the trigeminus, and not directly to the nerves supplying the muscles themselves, as, generally speaking, the best and speediest results are effected by reflex excitation through the fifth pair. The current used for that purpose must be relatively weak, not strong enough to produce muscular contraction, and its proper strength determined in each special case by the sensitiveness of the nerve operated upon, and the irritability of the patient. The excitation should continue only a very short time, from half a minute to one minute, at most—longer and more powerful application being apt to aggravate the original paralysis. In the greater number of cases indicating electrical treatment, the improvement takes place instantaneously (Benedikt), and is chiefly shown by an increased mobility of the eye and a diminution of the field, in which double images arise. When, however, the paralysis has been unaffected by a galvanic treatment of two weeks' duration, it should be desisted from, as no benefit is to be expected from its longer continuance (Benedikt).

In connection with the treatment just indicated, it is further of great importance to exercise and strengthen the paretic muscle, by covering the healthy eye at intervals during the day, and compelling the affected one alone to exert its visual function, especially in the direction of the diseased parts. For the purpose of improving the innervation of the muscle at fault, the eye should be adjusted for near or distant objects in accordance with the correction, that is attempted by the exercise—adduction or abduction—and if necessary, spherical glasses should be used, either to diminish or to increase the refractive power of the eyes.

In paralytic affections of less degree, the systematic treatment with prismatic glasses has been warmly recommended, and some ophthalmic surgeons of note have employed them in even more decided cases of paralysis with consequent strabismus. "Prisms with the base turned in the direction opposite to that of the squint have the power of causing a deviation of rays of light incident on their base, which may thus be used to deflect the rays proceeding from objects looked at, so that they may, in the case of the squinting eye, be made to fall upon a part of the retina congruous to that which receives them in the normal eye." Prisms may, in fact, be used thus to fuse and destroy double images and to

restore binocular vision. But apart from that optical function which has a temporary effect only, and leaves the material cause of the paralytic strabismus still in operation, they perform also a truly gymnastic one, by exercising and strengthening the parietic muscles and exciting them to a more uniform and synergic action. Unfortunately though, the practical results of that method of treatment do not correspond to the expectations which might theoretically be entertained, and the correction of the trouble by prismatic glasses is either not practicable in the majority of cases or aptly prepared for by the preliminary performance of tenotomy.

This operation, first performed by Dieffenbach on the living body, and after a period of apparent oblivion revived and brought to universal recognition by Graefe, takes foremost rank in the treatment of all forms of strabismus—pure and paralytic—and is indicated when all other curative methods have failed, and the affection threatens to cause severe secondary disorders, such as luscitas, amblyopia, &c.

Previous to undertaking an operation for the cure of paralytic strabismus, it is essential to ascertain, 1st, whether there is a sufficient capacity and breadth of fusion; and 2d, whether the paralysis has assumed a stationary character: these are conditions *sine qua non*, and their presence is indispensable to the successful treatment of the affection. The act of fusion of double images is a purely cerebral, not a sensorial function, and therefore does its loss or impairment clearly indicate the existence of an active, intra-cranial disorder, and the central origin of the paralysis (Graefe); although the latitude of fusion may also decrease with advancing years, after the visual power of one eye has been lost for a long time. If double images can be made to coalesce by means of prisms, the breadth of fusion is proved to be normal, the intuitive desire for binocular vision preserved and readily obeyed, and the scope perfect. While, therefore, a total loss of capacity and breadth of fusion will render all curative efforts unavailing, the cure of paralytic strabismus and diplopia will be—*ceteris paribus*—the simpler and easier, the more they are developed.

When the pathogenetic cause is no longer active, the affection has become stationary, the paralysis of the one or the other muscle remains unyielding, or secondary contraction of the antagonist has taken place, tenotomy should be at once performed; and it is obvious, that the extent

of the operation has to be regulated according to the degree of the affection. A few remarks on the leading principles of tenotomy, or, to speak more accurately, of strabotomy, may not be out of place.

Slight strabismic deviations, from 1 to  $1\frac{1}{2}$  line, demand a partial tenotomy only,\* but if they amount to from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  lines, the tendon must be completely divided; and the greater the deviation, the larger must be the hook employed, and the more freely the cellular tissues incised. Operations performed on one eye only, correct deviations amounting to  $2\frac{1}{2}$  lines; if the strabismus exceeds that amount, both eyes must be operated upon. Either a complete tenotomy should be performed in the squinting eye, and a partial one in the other, or the tendon should be completely divided in both eyes—a point to be decided by the amount of strabismus left, after the affected eye has been operated upon. It is a proper rule not to operate on both eyes in one sitting, especially in convergent strabismus—except, perhaps, in cases where the deviation exceeds 5 lines—for if both muscles have been divided at the same time, the accommodative movements directly after the operation cannot be accurately tested, and the only clue to the permanent effect is thus lost. The better and safer plan, and the one adopted by most ophthalmic surgeons, is to operate first on the squinting eye, and then, after the divided muscle has again re-united with the sclerotica, and the degree of the remaining deviation has been ascertained, to perform an operation on the healthy eye, the extent of which will depend upon the amount of strabismus still left. Any excessive effect of the operation can be reduced by a suture, the object of which is to re-advance the tendon, which is closely connected with the conjunctiva and subconjunctival tissue, to approximate more closely the divided ends, and to diminish the retraction of the muscle. The greater or less effect depends upon its position and the amount of conjunctiva embraced in it; it is greatest if inserted in a diagonal direction, and least, answering merely a cosmetic purpose, if inserted above. When the operative effect is too slight, it can be increased by the excision of a semi-lunar portion of the sheath and conjunctiva in the direction of the opposite side. In every operation for strabismus the effect is more variable than constant (Graefe).

Slight strabismic deviations require only the more or less complete division of the

\* We are informed that partial tenotomy has been abandoned by oculists generally.—Ed.



tendinous insertion of the muscle at fault, which loses power by its posterior attachment to the sclerotica, and causes, therefore, a smaller angle of squinting, the more the excursion of the globe is lessened in its path. Greater deviations, on the contrary, necessitate the distribution of the operation over both eyes, or render it, at least, far preferable to the immediate result of one operation only—and indicate the complete section of the affected muscle, together with a less complete division of its associate of the other side. The same operative principles which obtain in the treatment of pure strabismus, are also admissible in paralytic squint with deviations not exceeding 1 to 2 lines; but if the paralysis is more decided, the insertion of the parietic muscle must be *advanced* by means of the suture, or in extreme cases by the “thread-operation,” and at the same time the antagonist divided more or less completely. This method is equally applicable to primary strabismus, with an excessive angle of squinting and greatly impaired mobility in the path of the affected muscle, as to secondary squint, where the mobility in the course of the retracted muscle is nearly lost, and its connection with the eyeball totally suspended. Very rigid inquiry into the behavior of the various muscles, no less after than before the operation, and in near as well as in distant vision, is the indispensable condition of success in all operations. The frequently difficult question, whether parallelism is restored, or whether there exists yet some deviation from it in one or the other direction, must be decided by means of a prism, with its base downwards, and the dynamic latent preponderance must always be measured—these conditions determine the effect of the operation and the further course to be pursued. (If after an operation for convergent strabismus divergent squint develops in the course of time, it is owing to the fact that the dynamic deviation, already existing, has steadily increased, and at last can be no longer suppressed by the latitude of fusion.—Graefe.)

Just as in all other tenotomical or myotomical operations, so also in the operation for strabismus, the orthopædic after-treatment is of the utmost importance, and on the manner in which it is conducted depends to a great extent the permanency of success. The chief agents employed in that period are: stereoscopic exercises, suitably adapted glasses, prisms, and spectacles, by which the patient is compelled to direct the eye—in order to see—exclusively towards the right or the left side, just as the special case may require.

To sum up:—Tenotomy is able to effect in all forms of strabismus, whatsoever, an essentially improved, if not a perfectly normal position of the eyeball; it does further effect, in all cases in which the resulting amblyopia has not yet attained a very marked development, an improvement of projection, accommodation and distinctness of vision. The operation is not contra-indicated by incongruence of the two retinæ—although the disorder in question has to be remedied by a special after-treatment—and if in consequence of extensive corneal opacities, an aberration of the visual axes has already ensued, which prevents the recovery of better vision, it may at least fulfil a cosmetic indication. (Berliner D. Klinik. Report of commission.)

It remains yet to say a few words on mydriasis, paralysis of the accommodation, and their mutual relations.

According to Graefe and other observers, it is more than probable that the iris exerts no direct influence whatever upon the act of accommodation, as the perfect integrity of the latter has been proved in cases of an artificial pupil, traumatic loss and congenital absence of the former; but its auxiliary and indirect influence can hardly be denied, when the facts are taken into consideration, that a considerable impairment of accommodative power becomes manifest by extensive posterior synechiæ—and to some extent also after the performance of iridectomy (Stellwag)—and that in almost all cases of congenital irideremia a deficient development of the ciliary muscle is complicated with it. Simple mydriasis leads not necessarily to a paralysis of the accommodation, since it depends on a variety of causes, which affect the ciliary fibres of the iris only, either temporarily, as in the ephemeral form, or more constantly, as in the spasmodic, in which the dilatation of the pupil is undoubtedly owing to a spastic contraction of the radiating sympathetic fibres overpowering the action of the sphincter. But in the paralytic form, that occurs most frequently, paralysis of the accommodation is almost always present, for the reason that the same pathogenetic cause implicates the sphincter of the pupil and the ciliary muscle, intimately connected and supplied by the same nerve as they are. In cases of pure, uncomplicated paralysis of the ciliary muscle—and sphincter of the pupil—the originating disorder may exceptionally be seated in the cerebrum, but is almost invariably located in the lenticular ganglion or its radix brevis. Paresis of the accommodation and mydriasis

sis, on the contrary, which are combined with and in part symptoms of extensive functional disorders involving several muscles of the eyeball, are either due to morbid processes in the sheaths or trunks of the motor nerves, or oftener yet to affections in the central organs themselves. These primary affections are not always strictly material ones, consisting in marked changes of the organic tissue, but often unaccompanied by any manifest alterations, and then the expression of certain dyscrasias and intoxications only, such as mania a potu, diabetes, uræmia, &c.

Quite singular and characteristic is the paresis of accommodation, which is frequently met with in diphtheria, complicated with paralytic disease of the palatine and pharyngeal muscles. The unknown morbid cause seems to affect the ciliary muscle only, and to leave the circular fibres of the iris wholly intact; for, although one or more of the ocular muscles innervated by the third pair may at the same time be implicated in the diphtheritic paralysis, yet mydriasis is but very seldom observed. (When the two pupils present a different pathological appearance—mydriasis in the one eye being complicated with myosis in the other—the difficult problem, which of them comes nearer the normal condition, is decided by observing which possesses the greater excursive capacity and accommodative power.) The treatment of mydriasis and paralysis of the accommodation must, of course, be directed first and foremost against the pathogenetic cause, whenever such is practicable and promises any success. If the primary affection has been removed, and the mydriasis still exists as an independent disease, due to material, morbid changes in the nerve or muscle, remedies must be employed calculated to incite the sphincter papillæ to vigorous contractions, and for that purpose the direct excitation of the paralyzed parts by tincture of opium, the preparations of the Calabar bean (*phyostigma venenosum*), vapors of ammonia, and electricity is indicated. Forceful and methodically repeated contractions of the orbicular muscle—anti-mydriatic exercises—have been recommended by Graefe. The cure of paralysis of the accommodation requires a combination of remedial agents, general and local, which are apt to impart more vigor and vitality to the whole system as well as to the affected parts. Cautious exercise of the accommodative apparatus by suitably adapted convex glasses—varying as to degree, according to the particular circumstances—cold douches, gene-

rous diet, a hygienic regimen, and the internal use of quinia, ferrum and other tonics, are chiefly capable of restoring the impaired ciliary muscle to its proper functions and of improving the power of accommodation.—(Donders.)

The artificial mydriasis and paresis of accommodation, produced by belladonna, hyoscyamus, stramonium, &c., and their alkaloids, differ from the natural forms only as to cause and duration. If the application of the remedies just mentioned is moderate, mydriasis only ensues, but with their increase in strength and dose, the ciliary muscle, too, becomes paralyzed and the accommodation is temporarily annulled. In spastic contractions of the muscles, which execute the movements of the eyeball and are innervated by the third pair, especially in such as are produced by direct lesions, mydriatics have been employed with signal success; and the singular observation has been made, that the same agents which give rise to a thorough paralysis of the accommodation, if excessively used, restore the accommodative functions, suspended by the spasm, even before they have a chance to effect a dilatation of the pupil. (Graefe.) This antispasmodic effect of the mydriatics explains pretty satisfactorily the favorable influence they exert in the treatment of keratitis, iritis, iridochoroiditis, ulcerative processes, &c., for by reducing the irritation and hyperæsthesia of the sensory ciliary nerves, which usually attend inflammatory conditions of the eye, and by decreasing the *intraocular tension*, they act as truly sedative and antiphlogistic remedies. Ophthalmic practice is indeed vastly indebted to these invaluable remedial agencies, and no less a man than Graefe is authority for the sentence:—Atropia is the staff of ophthalmology.

CASE 1.—*Paralysis of the left Abducens, complicated with Mydriasis, Loss of Accommodation and Partial Anæsthesia of the left Trigemini.*—The facial, trochlear and oculomotor nerves, with the exception of the pupillary branch and the motory fibres of the ciliary muscle, were in a perfectly normal condition. The near point of the healthy eye—Jaeger No. 1—was at five inches, the far point in infinite distance, consequently normal; in the affected eye, on the contrary, the near point was, with the aid of a convex 7, found at six inches, and the far point quite close somewhere between 8 and 9 inches—thus indicating an exceeding impairment of the range of accommodation and a diminished power of vision. (Was this complication solely owing to the

ciliary fibres of the third nerve, which was otherwise nearly intact, being involved, or was it, together with the mydriasis present, more intimately connected with the paralysis of the abducens? For, according to Graefe and other observers, it is highly probable that the abducens takes a more or less decided part in the complex accommodative processes and in the movements of the pupil.) There was no protrusion perceptible in the orbit, but on pressure upon a small, circumscribed spot, the patient exhibited considerable sensitiveness, which might have been occasioned by a gumous tumor. Cerebral symptoms, psychical and hemiplegic disorders were wanting; therefore the origin of the paralytic affection was not to be sought for in the brain itself. The partial, circumscribed anæsthesia on the left side, however, rendered the diagnosis of a purely orbital disease improbable, and induced Graefe to locate the pathogenetic cause in the basilar region of the cranium. The trouble had slowly and gradually developed after a severe cold, and was no doubt owing to a *syphilitic*, cranial process, as a specific ulcer had existed long ago, and the characteristic osteocopic pains had troubled the patient for some time past. Mercurial inunctions and iodide of potassium operated favorably upon the primary disease, and the performance of tenotomy, &c., corrected the convergent strabismus and diplopia, and improved considerably the visual power of the eye.

CASE II.—*Paralysis of the Fifth and Sixth Pair, uncomplicated with Neuro-paralytic Ophthalmia.*—The left abducens and several branches of the left trigemini were completely paralyzed, the temporal and masseter muscles in a state of atrophy, and the bulbous, the eyelids and almost the entire half of the face, including the corresponding half of the nose and tongue, anæsthetic. The cranium was in some parts thickened, in others sunk in, and severe pain in the head, alopecia, intumescence of the glands and a profuse nasal catarrh further complicated the case. This group of symptoms was undoubtedly owing to lues, and the paralytic affection of the eye could only be explained by the existence of a specific, osseous disease in the basilar region of the cranium, which had extended to the origin of the implicated nerves. The diagnosis of cranial periostitis of a specific character, was corroborated by the speedy and favorable effect a rigorous antisyphilitic treatment produced upon the greater number of the morbid phenomena. Graefe thinks that paralysis of the fifth nerve is

usually complicated with neuro-paralytic ophthalmia, and originates most frequently from syphilis and its secondary manifestations. In connection with this case, in which softening of the eyeball was not noticeable, he took occasion to express his dissent from the view held by Donders, that trifacial anæsthesia had the tendency of rendering the globe more soft. He stated that in eight or ten cases which had come under his observation, he had failed to notice that connection, and attributed the fact of the globes becoming softer after section of the fifth nerves, in consequence of a decreased tension, to other causes, far more complicated and not yet cleared up.

CASE III.—*Paralysis of the left Abducens and Oculomotorius, with Secondary Strabismus in the Right Eye.*—The affected eye showed no mobility upwards, inwards and outwards, only the movement downwards was unrestrained on account of the perfect integrity of the trochlearis. The levator palpebræ superioris was impaired, but much less so than the rectus superior; the sphincter of the pupil and the ciliary muscle were also palsied, and in consequence mydriasis and loss of accommodation became apparent. The right eye revealed an excessive strabismic deviation upwards and outwards; although not primarily diseased, and having become affected with squint only on account of the paralytic condition of the other, it had lost, to a great extent, its visual power by being excluded from the common act of vision. Not participating in that, it revealed a secondary deviation whenever the other eye fixed any object; and the loss of correspondence in the direction and movements of the two eyes had gradually led to an affection of the optic, nervous apparatus in the weaker. The paralyzed eye, possessing stronger and distincter sight, performed exclusively the act of vision, and condemned the squinting one to remain—as far as its function of seeing was concerned—in a state of utter passivity, which gave rise to torpor of the retina and to optic anæsthesia. Amblyopia ex anopsia, arising under such circumstances, affords in most cases only a very insignificant, if not a negative ophthalmoscopic sign; whenever atrophy of the optic nerve is found in anopic amblyopia, it results not from exclusion alone, but from a complicated neuritis or other affections of the optic nervous organs. The history and appearance of the case rendered it highly probable that the morbus causans was a peripheral one, and of rheumatic character, yet having existed for a considerable time, and being complicated

with functional disorders, and most likely, too, with material changes in the affected nerves and muscles, the prognosis was considered unfavorable. Local depletions with Heurteloup's artificial leech were made, which gave considerable relief and freed the patient from the severe spontaneous headache and the great pain consequent upon knocking on the head; and to meet other indications mercurial inunctions and iodide of potassium were prescribed.

CASE IV.—*Paralysis of the Oculomotorius, Abducens, Trochlearis, upper branch of Trigemini and Infraorbitalis*, with perfect immobility of the eyeball, paralysis of sensibility, and anæsthesia of the cornea, without the slightest reaction on touch. All these symptoms were one-sided and complete, and on that account the primary cause of the paralysis could probably be a peripheral one only—central palsies of a similar character being of very rare occurrence. In this case the etiology aided, in combination with the symptoms present, in establishing a correct diagnosis and in determining the exact seat of the originating trouble. It had begun suddenly, after exposure and a severe cold, with excessive pain in the orbit, increased by pressure, and later rigidity and gradual protrusion of the eyeball had followed, together with the paralytic disorders in the various nerves implicated. The suddenness of the attack proved at once its rheumatic character, and excluded all direct and immediate connection with syphilis, &c.; it was a clear case of plastic inflammation of the orbital periosteum, with secondary neuritis, which had produced the paralysis. Periostitis of the orbit is owing to a great variety of causes, either of a constitutional or local character, which modify considerably its course and termination. Vehement concussions, direct lesions and also causes not understood, give rise to it, and develope its symptoms sometimes very slowly; arthritis, mercurial cachexia and syphilis play an important part in its production, but it is chiefly scrophulosis that leads to the most torpid and protracted forms and complicates them with caries and necrosis. Among its indirect causes are orbital abscesses and tumors, phlegmonous dacryocystitis, and suppurative meningitis, the most frequent and usually leading to caries of the bones composing the walls of the orbit. The case under consideration being of a purely rheumatic character and of comparatively recent date, admitted at least of a doubtful prognosis—*vergens ad faustam*—and gave hope of yielding to proper curative measures.

Local abstractions of blood, a strict antiphlogistic and derivative treatment, later iodide of potassium, &c., were resorted to, and proved of decided benefit.

CASE V.—*Bilateral Paralysis of the third, fourth, and sixth Pair*, with paralytic ptosis, slight prominence and almost complete immobility of both globes; but perfect integrity of the circular muscular fibres of the two irides, and of the ciliary muscles, and consequently with a normal condition of the pupils and an unimpaired power of accommodation. This singular phenomenon—the perfect integrity of accommodation and pupillar contraction, contrasting with an absolute immobility of the eye (by the thorough paralysis of its entire motor apparatus)—has been repeatedly observed by Graefe, and he looks upon it as a characteristic symptom in such cases as the one under consideration. These observations were used as a striking and successful argument against those who had asserted that the accommodation was owing to the united action of the external muscles on the eyeball, and had denied the chief instrumentality of the ciliary muscle, in performing the accommodative function. The affection, which had suddenly arisen, was probably due to a speedily forming infiltration on the basis cerebri in consequence of periostitis in the dura mater; at first vehement pains had been present, but they had gradually ceased and returned only occasionally with greater intensity. These were all the anamnestic data that could be ascertained respecting the trouble, the patient having formerly enjoyed good health and being utterly unable to mention any cause which might have given rise to it. Etiological momenta, pointing to any morbid tendency, specific disease, &c., were also wanting, as far as the objective examination could disclose them; yet syphilis was suspected as the primary cause, and as more likely to have produced the paralysis than an idiopathic or rheumatic cranial affection. The absence of any diffuse cerebral symptoms, of paralytic disorders in other parts, and of serious complications with the optic and sensory nerves of the eye, proved sufficiently that the original trouble had not extended beyond its first seat, that the fierce, most intense stage of the intracranial disease had passed away, and that the latter's power for mischief had greatly decreased within its narrow, circumscribed limits. The prognosis in such cases depends, apart from the pathological cause, from constitutional or local complications and other less appreciable influences, chiefly on their course and

duration. Rapidly developing bilateral paralysis of the third, fourth and sixth pair admits usually of a favorable prognosis, and as the infiltration giving rise to it disappears, a speedy retrogression of all paralytic symptoms takes place simultaneously. Chronic cases, on the contrary, and such as arise slowly and insidiously, are unexplainable and far more unfavorable; for besides the severe cerebral disorders usually complicating them, the visual power, too, becomes greatly impaired, and amaurosis, more or less complete, supervenes. In the case under consideration an energetic antiphlogistic treatment, mercurial inunctions and iodide of potassium were consecutively employed with signal benefit.

CASE VI.—*Paralysis of the right Oculomotorius of traumatic Nature and long Duration.*—The first stages of the affection had been marked by intervals of complete improvement and an apparent *restitutio ad integrum*; at times very violent headaches had occurred, during which the paralytic symptoms intermitted, to return again after the cessation of the former. For the last two years, however, the paralysis had existed uninterruptedly, although the characteristic headaches still came on periodically and in paroxysms. They were owing to the residua of a probably periosteal affection, which produced continually fresh irritation, and gave rise to typical exacerbations, without any palpable cause becoming apparent. The paralysis itself was now dependent on pathological changes in the involved nerve and on secondary atrophy and fatty degeneration of the muscles supplied by it. The prognosis, under these circumstances, was highly unfavorable, and no benefit could be expected from a medical or operative treatment, even though the primary affection had been wholly removed. There was an interesting phenomenon connected with this paralysis, namely, the very slight ptosis; and Graefe tried to explain it, by pointing to the fact that chronic paralysis of the third nerve was usually attended with very slight ptosis, while in the acute form it developed rapidly and became more marked.

ciety for Medical Improvement, which has a certain precedence. At all events, as extra pages are supplied, articles which have been waiting have not been thrust aside to make room for it.

## AMERICAN MEDICAL ASSOCIATION.

(Continued from page 268.)

WE surrender the chief part of our Editorial space this week to a continuance of the report of the late session of the American Medical Association.

Dr. L. P. Yandell, Jr., of Kentucky, offered the following, which was adopted:—

*Resolved*, That private handbills, addressed to members of the medical profession, or by cards in medical journals, calling the attention of professional brethren to themselves as specialists, be declared in violation of the Code of Ethics of the American Medical Association.

The special order for one o'clock being the report on American Medical Library, Dr. Toner, chairman, read the report.

After some discussion, on motion of Dr. Hibberd, of Indiana, the report was accepted.

Dr. Davis, of Illinois, offered the following resolutions:—

*Resolved*, That the proposition of the Librarian of the Congressional Library be accepted.

*Resolved*, That a committee of one be appointed, residing at Washington, to render the Librarian of Congress such assistance as the interests of the Association may require. Adopted.

Report on Medical Education presented, and, on motion of Dr. Hibberd, of Indiana, it was made the special order for 10 o'clock to-morrow.

Committee on Prize Essays reported:—

The undersigned, appointed Committee on Prize Essays at the session of 1868, respectfully report:—

They have received but two essays—one upon "The Physiological Effects and Therapeutical Uses of Atropia and its Salts"; the other upon "Quinine as a Therapeutic Agent." They agree to present both of these essays to the Association, and to recommend the award of a prize of \$100 to each of them.

S. M. BEMISS, *Chairman*.

C. BEARD, M.D.

JOSEPH T. SCOTT, M.D.

S. A. SMITH.

The Secretary broke the seals, and announced that Dr. S. S. Herrick, of New

## Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 20, 1869.

ONE of the communicated articles of today is matter belonging to the Boston So-

Orleans, was the author of the paper on quinine, and Dr. Roberts Bartholow, of Cincinnati, was the author of that on atropia.

Remarks upon certain points referring to success in the operation of vesico-vaginal fistula, by M. Schuppert, M.D., of New Orleans, La. Referred to Section on Obstetrics.

On motion of Dr. Davis, the Sections were authorized to meet at 3½, P.M., in place of 8.

Communication from Gynæcological Society was read by Permanent Secretary, and, on motion of Dr. Davis, was laid upon the table.

Dr. Booth, of Mississippi, offered the following resolutions:—

*Resolved*, That the proper construction of Art. 4, Sec. 1, Code of Ethics, A. M. A., having been called for, relative to consultation with irregular practitioners who are graduates of regular schools—

*Resolved*, That said Art. 4, Sec. 1, Code of Ethics, A. M. A., excludes all such practitioners from recognition by the regular profession.

On motion, the Convention adjourned until Thursday, at 9, A.M.

*Notes of some of the Debates.*—During the debates on the revision of the plan of the organization, considerable interest was excited by the amendment with reference to a change in the mode of balloting for President, and a discussion arose, participated in by Drs. Ross of Alabama, Davis of Illinois, Woodward, U.S.A., Mussey of Ohio, Dr. L. A. Sayre, of New York, was generally of the opinion that these tinkering of the constitution were inexpedient. He at first moved that the amendment be laid on the table, but subsequently withdrew the motion in favor of Dr. Lindsley, of Tennessee, who also expressed himself in opposition. The question being called by Dr. Sayre, the sense of the Association proved to be largely against the proposed amendment, and it was rejected unanimously.

Another resolution that called for special attention, and was closely debated, was the resolution offered by Dr. J. R. Barnett, of Vicksburg, to which reference has already been made. A sharp discussion ensued—with the speakers, with the exception of Dr. Barnett, solid against it. It was clearly the opinion of the meeting to discountenance all practitioners of special dogmas, and to frown down any professional consultations between them and regular physicians. The debate on the resolution was brought to a close by the approach of the

hour (1, P.M.) previously fixed for consideration of the report of the Committee on a "Library of American Medical Works." The President called the hour, and the matter was dropped. The recognition of Homœopathy by the profession is still an open question; or, rather, it seems to be settled for some time.

The "Report on the Practicability of establishing a Library of American Medical Works," read by Dr. J. M. Toner, of the District of Columbia, and signed by himself as Chairman, Drs. N. S. Davis and D. Francis Condie, elicited a spirited exchange of views. The main interest turned upon the expediency of avoiding the danger to the proposed Library which might result from the books being placed in the new Hall and Library Room of the Association. Upon this subject the report stated that the Medical Society of Washington City had just completed a Hall and Library Room, and would cheerfully assume control of all the works collected by the American Medical Association, and keep them in a condition to be readily consulted. But lest an objection might be raised in the Convention that would defeat the measure almost in its inception, that the Association had not a fire-proof building to keep safely such a collection, the report recommends that the books, when collected, be placed in the library of Congress, with an agent or Librarian of the Association to receive packages and pay all expenses resulting from their deposit.

A copy of the correspondence between Dr. Toner and Mr. A. R. Spofford, the Librarian of Congress, offering to receive the books, is included in the report. The discussion was both full and interesting, ending in a resolution in accordance with the recommendations of the Committee.

THIRD DAY, THURSDAY, MAY 6, 1869.

The committee on President's Address presented the following report:—

We cannot refrain, before entering upon the consideration of the plan recommended by the President, for the improvement of medical education, from gladly expressing our high appreciation of the general tone of this address, of the broad and catholic spirit which pervades it, finding expression in earnest and eloquent words—in brief, we believe the address worthy the perusal of every member of the profession, in that it was worthy the memorable occasion, and is worthy the annals of medicine.

On the other hand, we cannot refrain, with sadness be it said, from acknowledging

the truth of the terrible allegations made against the present condition of medical education, and the little success attending the efforts for improvement in such connection, made during a score of years.

The special recommendation made by the President is in these words:—

"I would advise that we appoint a committee of our wisest and best men to digest a plan for one or more National Medical Schools, and to memorialize Congress in behalf of the enterprise. Let the plan embrace as a basis the features presented by the Cincinnati Convention of Teachers; let these schools or universities confer such distinctions and privileges as will be proportionate to the superiority they demand, and such as will make the attainment of their diploma an object of the ambition of those who engage in the study of medicine; let the choice be open to all aspirants, and the appointment or election of professors so guarded as to secure the very highest talent, the most profound learning with the most fully demonstrated capacity for teaching. Make the salaries of the professors large, and not to depend upon the number of students; and let the Federal Government assume a proper share of the expenses incurred."

Your committee express their hearty approval of this general plan, but suggest that the effort at first should be for the establishment of but a single school, as more feasible, and beside one such institution would be a model which other medical colleges might in time be induced to imitate in extent, duration and thoroughness of teaching, and in rigidity of requirements for the degree of M.D.

We likewise desire to say that when the details of this general plan are thrown into form there should be the amplest security against the places and the power of such a medical college as designed ever falling into the hands of politicians or the protégés of politicians. Medicine is higher than politics, broader than political creeds and party platforms.

In conclusion, your committee reiterate the recommendation of the President as to the appointment of a committee for the special purposes referred to.

Drs. Parvin, Welch, Seely, Toner and Pollock, committee.

Dr. Hibberd moved acceptance, was adopted, and on the proposition of Dr. Davis the committee was ordered to consist of five. The President appointed Dr. W. O. Baldwin, of Alabama; Dr. F. G. Smith, of Pennsylvania; Dr. Dr. D. H. Storer,

of Massachusetts; Dr. E. F. Gaillard, of Kentucky, and Dr. Joseph Jones, of Louisiana.

The President appointed as Delegates to the British Medical Association:—

Dr. N. Pinckney, U. S. N.; R. R. McIlvain, Ohio; J. F. Hibberd, Indiana; B. Lindsey, D. C.; G. C. Blackman, Ohio.

To the Canadian Medical Association:—Dr. Alden March, Albany, N. Y.

To the Committee on Ethics was appointed:—Drs. Sayre, N. Y.; Toner, D. C.; Askew, Delaware; Arnold, Ga.; McCluskey, Alabama.

Dr. Davis read report of meeting of editors, and presented the following from the Association of American Medical Editors:

To the American Medical Association:

I have been instructed to announce to your honorable body, that those members of your Association in attendance on this annual meeting, after proper consultation, have effected a permanent organization, with the title of "The Association of American Medical Editors." The objects of this organization are the cultivation of friendly relations, mutual assistance, community of efforts and views, where possible, in system of receiving foreign exchanges, and sending our own journals abroad; concert of action in support of improvements in the present system of medical education, and of a higher standard of preliminary attainments for those who propose to enter upon the study of medicine; in proposing laws for the proper registration of births, marriages and deaths; in collecting the names of all the regular practitioners in the several States, and in promoting generally the value and efficiency of our periodical medical literature. The association thus formed is to hold its annual sessions on the day preceding the annual meetings of this body, and in the same localities. Dr. Mitchell, of New Orleans, is the permanent Secretary, and Dr. J. B. Lindsley, of Nashville, Tenn., the Assistant Secretary. Congratulating your honorable body on the establishment of another organized power within the ranks of your noble profession, I remain yours, most truly,

N. S. Davis, Editor,  
President of Association of American  
Medical Editors.

Referred to Committee on Publications.

The Secretary presented a paper from Dr. Walsh, of Georgia, referring to the action of the Georgia Medical Society in his case. Referred to the Committee on Ethics.

Dr. Parvin read report of Dr. J. C. Reeves, on medical education, which had been made the special order for 10 o'clock, A. M.

Adopted and referred to the Committee on Publications.

The Committee on Nominations—Dr. J. J. Woodward, U. S. N., President, reported the following names:—

*For President*—Geo. Mendenhall, Ohio.

*For Vice Presidents*—Warren Stone, Louisiana; Lewis A. Sayre, New York; F. Gurney Smith, Pennsylvania; John S. Moore, Missouri.

*For Assistant Secretary*—Wm. Lee, District of Columbia.

*For Treasurer*—Casper Wistar, Pennsylvania.

*For Librarian*—Robert Reyburn, District of Columbia.

*Committee of Arrangements*—Thomas Antisell, chairman, Robert Reyburn, C. M. Ford, L. W. Ritchie, W. J. C. Duhamel, D. R. Hayner, C. F. Nally.

*Committee of Publication*—V. Gurney Smith, Pa., Chairman; W. B. Atkinson, Pa.; A. J. Semmes, Ga.; Robert Reyburn, D. C.; Caspar Wistar, Pa.; H. F. Askew, Del.; Wm. Maybury, Pa.

*Committee on Medical Literature*—J. J. Woodward, U. S. A., Chairman; W. H. Anderson, Ala.; Theophilus Parvin, Ind.; Hosmer A. Johnson, Ill.; C. W. Parsons, R. I.

*Committee on Prize Essays*—Grafton Tyler, D. C., Chairman; N. L. Lincoln, D. C.; N. R. Smith, Md.; G. W. Miltenberger, Md.; W. R. Dunbar, Md.

*Committee on Epidemics*—Add the following to fill vacancies: J. K. Bartlett, Wis.; J. B. Jackson, Ky.

*Committee on Education*—T. G. Richards, La., Chairman; E. W. Jenks, Mich.; E. S. Gaillard, Ky.; W. M. McPheeters, Mo.

Time for meeting, in Washington, first Tuesday in May, 1870.

J. J. WOODWARD, U. S. A.

Chairman.

The report was unanimously adopted.

Dr. Herrick, Louisiana, offered amendment to amendment on the duties of physicians to each other and the profession at large.

ART. 1. DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER—PROPOSED AMENDMENT—ADDITIONAL SECTION.

SEC. 5. The spirit of trade and of gain from merchandise should by all means be dissociated from the practice of a liberal profession, and it is important that practitioners should not allow their pecuniary interests to compromise their duties to their patients. Therefore, in cities and other communities where the services of compe-

tent apothecaries can conveniently be obtained, physicians should resign to them the whole business and profits of dispensing medicines.

Laid over to next yearly session.

Dr. Davis offered a report on various propositions and communications from medical societies, which were adopted and referred to the Committee on Publications.

Dr. Davis offered the following:

*Resolved*, That a special committee of three be appointed by the President to present copies of the resolutions adopted before the several State medical societies at as early a period as possible. Adopted.

Dr. Chaille, of Louisiana, chairman of committee, presented a report on medical nomenclature, which was received and adopted, and referred to Committee on Publications.

[To be continued.]

ANSWER TO QUERY ADDRESSED TO THIS JOURNAL BY THE LONDON MEDICAL TIMES AND GAZETTE.—*Official Tincture of Iodine and Aconite Root as applied to the Gum for Periodontitis*.—The *Dental Cosmos* publishes a letter from Prof. Abbott, of New York, in which he states the dose thus:—"In each application of the mixture there are used from two to three drops of it—making from a drop to a drop and a half of the aconite." Prof. Abbott is more than ever gratified with the apparent results of the remedy. He enjoins one precaution in its use—the fluids of the mouth, he says, should be kept from it until the alcohol is sufficiently evaporated to prevent its being washed from the part to which it is applied. This requires about one minute.

ARSENIC AS A CAUSE OF HERPES.—Mr. Hutchinson, in the *London Medical Times and Gazette*, some time since, reported certain cases of herpes zoster which he thought might have been produced by the taking of arsenic prescribed for other skin diseases. In the number for April 17th he gives eight more similar cases. He also mentions two cases of other forms of herpes arising during the taking of courses of arsenic.

VIENNA *versus* CLEANLINESS.—A correspondent of the same journal gives a graphic but not flattering description of Vienna in the matter of cleanliness. He says the



supply of water on a toilet table amounts, at the outside, to a quart. A bath in a private house is a "curiosity." And the water closets must be a curiosity to Americans and English. These contrivances have no water supply *but the stops*. Surpassingly beautiful as Vienna is, the writer says, it has one great fault—it requires one to hold the nose too often. Typhoid is rife; and so is phthisis—called there *morbus communis pulmonum*, *morbus Viennensis pulmonum*, *morbus Viennensis*, names showing what a scourge consumption is in Vienna. No wonder, we add, that the great authorities on cutaneous diseases hail from that city!

EXTRACT from a letter from an American in Vienna:—

I don't think that people at home quite appreciate the fact that here in Vienna the men from "Little Boston" stand at the head of the medical university for diligence and application. This is no empty boast, for if a man sails under Boston colors much more seems to be expected of him. The Americans are altogether the hardest workers here, and young men learn only by experience to husband their strength.

"SUITS FOR MAL-PRACTICE."—*Mr. Editor*:—Two suits for mal-practice against members of the Massachusetts Medical Society, have, the past week, been brought to a successful termination. The first was brought against one of the older members of the Norfolk District, for alleged mal-treatment of a broken thigh. The plaintiff claimed \$10,000 for a shortening of 2½ inches. It was proved to be shortened only 1¼ inches; that this amount of shortening was not unusual; and that the treatment had been good. The trial consumed three days. The jury returned a prompt verdict for the defendant.

The second suit was brought against a suburban physician of age and repute, for alleged deformity of the little finger after a dislocation of the elbow, fracture of the radius, and lacerated wound over the 5th metacarpo-phalangeal articulation. Damages laid at \$5,000. The plaintiff's lawyer threw up the case; and the judge dismissed the action.

Having passed through ourselves the pleasant experience of a suit for mal-practice, we can the more heartily sympathize

with the defendants, both of whom are most deserving members of the profession. Had the verdict been for the plaintiffs, the practice of surgery would have been too hazardous for comfort in this State. D. W. C.

NORFOLK DISTRICT MEDICAL SOCIETY.—At the annual meeting, May 12th, 1869—the largest ever held by the Society—the following officers were unanimously elected for the coming year:—Dr. Benjamin E. Cotting, of Roxbury, *President*; Dr. Christopher C. Holmes, of Milton, *Vice President*; Dr. Edward Jarvis, of Dorchester, *Secretary*; Dr. Eben P. Burgess, of Dedham, *Treasurer*; Dr. D. S. Fogg, of South Dedham, *Librarian*.

*Councillors*.—Dr. G. J. Arnold, of Roxbury, Dr. B. E. Cotting, of Roxbury, Dr. B. Cushing, of Dorchester, Dr. G. Faulkner, of Jamaica Plain, Dr. W. C. B. Fifield, of Harrison Square, Dr. J. G. S. Hitchcock, of Canton, Dr. E. Jarvis, of Dorchester, Dr. A. LeB. Monroe, of Medway.

*Censors*, Dr. J. S. Green, of Dorchester, Dr. J. Seaverns, of Roxbury, Dr. C. C. Tower, of So. Weymouth, Dr. C. E. Stedman, of Dorchester.

*Commissioner of Trials*, Dr. E. Stone, Walpole.

*Committee of Supervision*, Dr. S. E. Stone, of Walpole, Dr. W. S. Everett, Hyde Park.

O'REILLY PRIZE.—We are informed that Dr. Robert T. Edes, now residing at Mt. Pleasant, Southern District, recently received the New York O'Reilly Prize of six hundred dollars for a dissertation on the Physiology and Pathology of the Sympathetic Nerve. Dr. Edes, it will be recollected, took one of the three prizes conferred last year in this State, on dissertations on "The Part performed by Nature and Time in the Cure of Diseases." We have written and placed on file a review of these last mentioned papers, which has been crowded out for some time.

We learn through the *Union Médicale* that the *International Conference with reference to the Wounded in War*, held a short session the 24th of April. A report was made describing disinterested actions which have been performed in behalf of the wounded. M. Langenbeck proposed that in time of war neutral governments be invited to place a certain number of military surgeons at the disposal of the belligerents.

## Medical Miscellany.

A "NUT" CRACKED. *Mr. Editor*.—As tumors are acknowledged to have a growth irrespective of that of the body, so they often have their limits of dimension, their cessation of growth, their degeneration or waste, and finally—no very infrequent occurrence—their spontaneous absorption and disappearance. How fortunate it was not necessary to "ligate" that artery! It might have hurt it. SCURBAN.

THE BILL FOR REGULATING THE PREPARATION OF MEDICAL PRESCRIPTIONS.—The following is the text of the act introduced by Mr. Carpenter, of the New York Assembly, and now awaiting the Governor's signature, regulating the preparation of medical prescriptions:—

SECTION 1. No person employed, or in attendance at any drug store or apothecary shop shall prepare a medical prescription unless he has served two years' apprenticeship in a drug store, or is a graduate of a medical college, or a college of pharmacy, except under the direct supervision of some person possessing some one of the before-mentioned qualifications; nor shall any one having permanent charge as proprietor, or otherwise in any store at which drugs are sold by retail, or at which medical prescriptions are put up for sale or use, permit the putting up or preparation thereof therein by any person unless such person has served two years as apprentice in a retail drug store, or is a graduate of a medical college, or a college of pharmacy.

SEC. 2. Any person violating the provisions of this act shall be deemed guilty of a misdemeanor, and shall be punishable by a fine not exceeding \$100, or by imprisonment, not to exceed six months, in the county jail; and in case of death ensuing from such violations, the person offending shall be deemed guilty of a felony, and be punished by a fine not less than \$1000, nor more than \$5000, or by imprisonment in the State Prison for a term of not less than two years, nor more than four years, or by both fine and imprisonment, in the discretion of the court.

SEC. 3. This act shall take effect immediately.

WE have received from Dr. C. A. Walker, Superintendent of the Boston Hospital for the Insane, a copy of the Library Catalogue of that institution. The Preface states that "this library was founded in the year 1861, and has grown chiefly by purchase to its present size. Alderman Charles F. Dana made a donation of about forty volumes in 1865, and it is indebted to Ex-Alderman W. W. Chapp for as many more the present year. The Boston Public Library last year furnished a large number of second hand volumes and illustrated papers, which were of great service for unrestricted use in the wards. It is hoped further contributions may be received of entertaining literature, as well as of standard books for the library. Pictures of any kind suitable for the decoration of hospital wards will also be thankfully acknowledged." Dr. Walker adds, that "what is of no value to others may be of great use to us."

APPOINTMENT.—Dr. T. W. Fisher, late Assistant Superintendent at the Boston Lunatic Hospital, has resigned to enter upon practice in this city. Dr. Geo. H. M. Rowe has been appointed in his place.

TREATMENT OF RUPTURE OF LIGAMENTUM PATELLE AND OF TRANSVERSE FRACTURE OF PATELLA.—M. Sistach is of opinion that position and immobility for a sufficient length of time are quite sufficient to effect a good cure, without any use of the compressive bandages and apparatus so generally used, which are liable to do harm rather than good, preventing the nutrition of the limb, and specially the formation of the new material which is to unite the divided ends of the tendon, causing atrophy of the limb and local seurv. —*Gaz. Méd. de Paris*.

WARM COD LIVER OIL.—Dr. Betz finds warm cod liver oil often tolerated when the oil cold cannot be borne.—*Memorabilien*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Case of Remarkable Longevity—Recovery from Pneumothorax—Case of Remarkable Recovery from Injury of the Head—Communication on "Fountain Syringe."

N. B.—Papers signed only with initials are necessarily treated as *anonymous*.

PAMPHLETS RECEIVED.—Proceedings of the State Medical Society of Michigan, for the years 1867 and 1868.—Smallpox and the Protective Power of Vaccination in the City of Providence: A Report to the Board of Aldermen, April 26, 1869, by Edwin M. Snow, M.D., Superintendent of Health.

CORRECTION.—The articles in our last week's issue entitled "Researches on the Physiology of the Cerebellum," and "Laryngeal Tumor removed by opening the Larynx," should have been credited to the American Journal of the Medical Sciences.

DEATHS IN BOSTON for the week ending Saturday noon, May 15th, 101. Males, 46—Females, 55.—Abscess, 1—accident, 4—aneurism, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 4—bronchitis, 3—cancer, 1—cholera infantum, 1—consumption, 14—convulsions, 4—debility, 2—diarrhea, 1—diphtheria, 1—dropsy of the brain, 1—drowned, 2—erysipelas, 1—scarlet fever, 9—typhoid fever, 1—gangrene, 2—gastritis, 2—disease of the heart, 5—infantile disease, 1—insanity, 1—intemperance, 1—disease of the kidneys, 1—inflammation of the lungs, 7—marasmus, 4—old age, 8—paralysis, 2—peritonitis, 1—pleurisy, 1—puerperal disease, 4—unknown, 6—whooping cough, 1.

Under 5 years of age, 30—between 5 and 20 years, 9—between 20 and 40 years, 21—between 40 and 60 years, 21—above 60 years, 20. Born in the United States, 59—Ireland, 28—other places, 14.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

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## Original Communications.

### A CASE OF HERPES ZOSTER OPHTHALMICUS, IN A PATIENT 80 YEARS OF AGE, CAUSING FATAL PROSTRATION; WITH REMARKS.

By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon  
Mass. Char. Eye and Ear Infirmary, Boston, &c. &c.

A. B., an active and healthy old lady nearly 80 years of age, was attacked December 20, 1867, by a violent neuralgic pain in and about the left eye, running over the forehead and on to the side of the nose. Three days later her physician was called, who regarded it as hemicrania, and prescribed aconite over the frontal nerve. This application did not afford relief. There were occasional remissions, but no real intermissions of the pain as in true hemicrania. The temporal artery was so enlarged at this time as to form a tumor an inch in length under the skin upon the temple, and this in so marked a degree as to give rise to the idea of aneurism. The ocular conjunctiva was excessively inflamed, and an ophthalmic surgeon in consequence called in consultation, who found ulcer of the cornea but no iritis, and prescribed solution of atropine, precautionary. Subcutaneous injection of morphine was also used three times. Eruption on the skin was not noticed till the 25th, five days after commencement of pain, when "excoriations" were seen, covered by thick crusts upon the forehead, side of nose and upper lid, not beyond the median line, which were thought to be due to the application of aconite. Emollient applications were used over the parts affected, and the injection of morphine subcutaneously into the arm was the only other special treatment, with the exception of quinine. (The above brief account is given me by the attending physician.)

I first saw the patient January 3d, two weeks after the commencement of the disease, which I recognized at once as a typical case of *herpes zoster*, affecting the cutaneous and mucous distribution of the ophthalmic division of the fifth or trigeminal nerve—namely, the forehead, upper lid, eye

and side of nose.\* There was swelling and hardening over the artery on the temple, and bunches under the skin; thick, deep-seated crusts scattered over the parts enumerated, where the skin looked unhealthy and had a peculiar pink tinge, exactly limited as the crusts, by the median line on the nose, forehead and scalp. One large crust occupied the edge of the orbit over the exit of frontal nerve. Crusts and scabs were expelled from inside of nose on that side, showing the mucous membrane to be implicated; also occasional slight nasal hemorrhage. The lower lid and cheek were not affected, the disease being accurately limited to the distribution of the ophthalmic nerve. The upper lid was considerably swollen and the conjunctiva inflamed and secreting a muco-purulent discharge, the cornea hazy, and vision reduced to counting figures at two feet; it could not be more definitely determined; considerable photophobia. The iris did not, so far as could be seen through the cornea, seem implicated. The pupil was dilated. Tension of the eyeball not ascertained, from refusal of patient. The general tone and vigor of the patient was good, appetite considerable but capricious; the skin not dryer than would be found in such advanced age; the tongue moist and but slightly coated; the pulse large, full, and 100 to 120; urine high colored, but not very scanty; patient drank considerable; the bowels had acted naturally or by enema. But that which was, so to speak, the essential element of the disease, was the truly fearful pain in the parts affected, of a darting, lancinating and stinging character, with occasional remissions. The skin was tender to pressure, and yet

\* This case is quoted, p. 78, in Dr. H. F. Damon's little book on *Necrosis of the Skin*, thus:—

"Dr. Williams, of Boston, has observed a case of inflammation of the eye from *zoster frontalis*. The neuralgia was of an intense and persistent character. There was no eruption on the integument of the nose supplied by the nasal branch of the ophthalmic nerve."

As will be seen from my report, this statement is incorrect. Moreover, after reading the case at the Newport meeting, 1858, of the American Ophthalmological Society, the President, Dr. Williams, of Boston, stated that he had not recognized the case as one of *herpes zoster ophthalmicus* during the few times he saw it, the disease not having developed itself sufficiently.

not sensitive. During the next three weeks—making six in all—the disease ran its course, the pain ceasing January 24th. The patient kept her strength and some degree of appetite for the first four weeks, but gradually broke down under her suffering. The pulse kept up to at least 90, hard and full. By the time the pain ceased the patient was very much enfeebled and emaciated, and I then for the first time felt fearful she might not rally. She gradually faded away, and died on February 1st, the forty-fourth day from the commencement of the neuralgic pain, without any symptom of other trouble, and retaining her mind to the last. The eyelid had recovered its normal appearance, as also the side of the nose. The conjunctiva remained somewhat injected and the cornea hazy, *probably* also loss of sensation in it. The lid could be voluntarily raised, and secretion had stopped. The crusts on the forehead and scalp, where the pain was the last to leave, remained, and the ulceration was deep and considerable. These crusts were still present post mortem. No examination was made.

As to treatment, I was not able, while in attendance on the case, to follow out anything thoroughly. The patient was extremely self-willed and averse to doing anything that could not be promised as a miracle to relieve her suffering, which was so acute as to well excuse her fear of medicine, since she imagined every thing done but increased the pain. Opium dulled the pain but little, and acted badly on the digestive system and brain. Quinine was taken, six grs. a day for a few days, and I think with some benefit, enough at least for me to use it again another time. The patient would take but little stimulant, which, however, did good, especially toward the end of the disease. The last ten days she refused almost all nourishment. Excitement and mental irritation rendered the paroxysms worse. From the absence of general febrile symptoms I thought possibly digitalis might control the excessive action of the heart, and thereby mitigate the pain by less force in the arteries. Ten drops of the tincture once was all the patient would take. I was not sure, but thought this amount had some quieting effect, and should be led to employ an arterial sedative a second time. After pretty free action of cathartic medicine once or twice the pulse became fuller and slower (75 to 80), but went up again within twenty-four hours. When the disease had run its course then the pulse was feeble, small and not very quick, with great prostration. The thought of section of the fron-

tal nerve the patient would not have entertained for a moment, and it was not proposed, as it would not have relieved the pain in the eye and side of the nose. It might have been in place after the pain had retreated to the forehead and scalp.

In looking over the authorities I find that several—Cazenave, Erasmus Wilson, Hardy, Fuchs, Bärensprung, Neligan and Tilbury Fox—speak specially of ulceration and gangrene possibly occurring, particularly in old people, from herpes zoster. Fuchs alone says:—"It may be fatal. This result has been but seldom observed. Fr. Hoffman had two fatal cases from gangrene. It may also occur from metastasis, or ulceration and hectic fever."

I do not find it anywhere suggested that death might occur by exhaustion from the pain in the aged. That this was the cause in the case I have related there is in my mind no doubt, and I have the concurrent testimony of Drs. S. Morrill and Charles G. Putnam that no other symptom of disease could be found before death, after the pain had ceased and the disease run its course.

Cases of herpes zoster, or shingles, on the trunk are so often seen and so well understood that I need not stop here to give any description of the disease in general. But as I find that it is not understood, or perhaps believed, that this is a complaint which may occur from the crown of the head to the feet, over the course of distribution of the cutaneous nerves, I will here quote from Prof. Hebra, with whom the recent French and English authorities agree. He says:—"Under herpes zoster I include all those skin affections which present the character of herpes, and in which the part of the surface occupied by the groups of vesicles corresponds to the distribution of certain cutaneous nerves, and which, lastly (whether occurring on the head, trunk or limbs), are confined to one-half the body. It is only in rare and exceptional instances that *herpes zoster* attacks both sides simultaneously." "The localization of this disease was formerly much more strictly limited, the only cases which received the name of *herpes zoster* being those in which the eruption is seated on the trunk of the body (and chiefly on the chest), and is confined to one half of it. Further observation, however, has shown that, besides the chest, any part of the trunk or limbs, and even the neck, face or head, may present a similar efflorescence, affecting one side only, and that the changes through which the un-  
vesicles pass, and the whole course of the affection, are in these cases exactly

same as in the disease which occupies the trunk, and has always been regarded as the typical form of zoster."

In support of these views I give a table which I have compiled from the annual reports of the Vienna General Hospital for the years 1857 to 1866, inclusive, showing the number of cases and the regions of the body affected with herpes zoster.

CASES OF HERPES ZOSTER ON DIFFERENT REGIONS OF THE BODY, OCCURRING IN THE SKIN DEPARTMENT OF THE VIENNA GENERAL HOSPITAL, 1857 TO 1866; TEN YEARS.

HERPES ZOSTER.	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	Total.
Capitis			1	1		2	2	2	2	1	13
Facialis						2					2
Collaris	2						1	1			3
Nuchæ	1					2	1	1			5
Brachialis	2	3		2		2	1	2	2	1	14
Pectoralis	2	2	2	6	1	6	8	6	3	4	48
Abdominalis	1	1				2	2	2			6
Progenitalis							1				1
Petneumæ					2						2
Femorals	2			1	1		1	2	5	1	13
Total in the year.	13	9	3	10	4	12	16	14	14	7	102

Trousseau (*Clinique Médicale*) says:—

"One of the most characteristic phenomena of herpes, at least with old people, I have found to be the persistence of the pain after the disappearance of the eruption. This pain, in the same degree of severity and causing intolerable suffering to the patient, often persists not only for several months, whilst the cicatrices left after the formation of the bullæ are still apparent on the skin, but may even last a number of years.

"I have known an old lady who, at 70, had shingles, and who for fourteen years afterward still suffered the most terrible pain, especially at night. Now I have under treatment a lady of sixty, who for five years has been terribly tormented by the

pains of herpes. I have noticed several times a singular phenomenon:—the simple contact of the clothing often provokes the most unspeakable torture, and yet the skin has superficially a kind of insensibility, which often lasts long after the pains have ceased.

"If the prognosis of zona is not grave in that the patient's life is not hazarded, it is grave in that, with old people at least, its sequela may be intolerable suffering, to the despair of the patient and physician."

This is also the experience of many other observers. The subjects of this clinical lecture were two or three patients with herpes zoster then in the Hôtel Dieu, under Prof. Trousseau's care.

With regard to distribution, Prof. Hirsch says that herpes is wide spread over the earth's surface, among all races of men. He quotes Pruner as having seen it very frequently among the negroes in Egypt; on the other hand, Pollock noticed very few herpetic forms in Persia, and Thompson never saw or heard of a case of herpes zoster among the natives of New Zealand. In regard to its relative frequency upon the two sides of the body writers differ, but in putting together a large number of cases we find that it occurs about as often on one side as the other.

Prof. Christian A. Voigt has most minutely dissected and studied the ramifications and distribution in the skin of the separate cerebro-spinal nerves, and published his researches in the *Memoirs of the Imperial Academy of Vienna*, 1864. Prof. Hebra says:—"On the head, neck and limbs, the tracts of nervous supply pointed out by Voigt agree perfectly with the results of observation in cases of zoster. On the trunk, however, the correspondence seems at first sight to fail. For the dorsal and lumbar nerves are distributed to the skin by three separate sets of branches (posterior, lateral and anterior), which form as many 'tracts of nervous supply' running vertically on either side of the body. In reality, however, each of the dorsal and lumbar nerves takes a separate course forward from the spine to the front of the trunk, and the position of the vesicles of zoster accords perfectly with the distribution of these nerves."

Voigt, from his dissections, followed since 1851, deduces—

1st. Every sensitive nerve-bundle supplies with its peripheral termination a definite larger or smaller district of the skin of the human body, and these districts belong to a definite and constant number of

bundles. The mosaic of position and arrangement of these larger or smaller portions of skin and the peripheric terminal distribution of the sensitive nerves in them is, therefore, not arbitrary or accidental, but positively determined.

2d. This definite mosaic in the arrangement, position and ramification of the peripheric termination of the nerves very probably corresponds to a definite arrangement and position of the origin of the nerves in the nervous centres, brain and spinal cord.

3d. Anomalies occur only in the direction and course of the nerve from the centre to the periphery. Just as in the telegraph it makes no difference whether the connection between two stations is longer or shorter or doubled on itself, so the cutaneous nerves, when running irregularly, even doubling on themselves, yet reach a determined portion of the skin, and there first ramify.

4th. The number of nerve fibres held in any bundle receiving a special name is not always the same, for the fibres, in their course from centre to periphery, change company, join often neighboring nerve branches to again leave them, till, finally, they ramify on their determined portion of the skin.

Amongst various anomalies which Prof. Voigt has found, and from which the above deductions are made, are, in reference to the nerves implicated in our case, the following:—

The *lachrymalis* may be thicker than ordinary, twigs of the *supraorbitalis* running with it in its sheath. As a rule, the *lachrymal* supplies, in its final distribution, only a small part of the upper eyelid above the outer angle, and about six lines outward. I have found bases where a twig of the *lachrymalis* supplied one-half of the skin of the upper lid. Here commenced the twigs of the *supraorbitalis*, which generally emerges from the orbital foramen, but in this case ran down to the upper lid and joined the bundles of the *lachrymalis*; instead, therefore, of running along the upper wall, ran by the external upper angle of the orbit.

"The *infratrochlearis* becomes thicker by uniting with it twigs of the *ethmoidalis* which reaches the skin of the end of the nose between the bone and the *cartilago-triangularis*. The terminal twig of the *ethmoidalis* here runs, instead of *inside*, above the ethmoidal cells and along the anterior wall of the nasal cavity, *outside*, joining with the *infratrochlearis* to the skin of the ridge of the nose, and so to the end where it ramifies."

For the general distribution of the ophthalmic nerve I would refer to the special anatomies. Mr. Hutchinson has given it very perfectly and succinctly in his paper in the *Ophthalmic Hospital Reports*. I quote the above from Prof. Voigt, as the anomalies he found in dissection may possibly explain cases which might occur of herpes zoster ophthalmicus not apparently following strictly the usual distribution of the trigeminal.

The part concerned in our case is what Voigt calls the "anterior district of ramification of the head and face," beginning on the squama of the occipital bone, and running over to the chin. In this ramify the anterior subdivisions of the first, second and third branches of the trigeminus. Draw now a horizontal line, about six lines long, from the external angle of the eye to the "lateral border line," and a line from the internal angle directly to the end of the nose near the anterior part of the nasal opening, and these two lines, with the commissure of the eye, will separate the district of ramification of the first from the second trigeminal branch. In this district terminate the *supraorbitalis*, *frontalis*, *supraet infratrochlearis*, *lachrymalis*, and the end of the *ethmoidalis*, on the point of the nose.

"The ramifications of the *supraorbital* do not, as generally given, end on the crown, but run on further and reach the squama of the occipital bone."

This last fact explains the portraits of the disease given by Drs. Boeck and Danielsén, and Prof. Hebra.

(To be continued.)

## ON THE USE OF THE CHLORIDE OF GOLD IN MICROSCOPY.

By THOMAS DWIGHT, Jr., M.D.

PERHAPS no re-agent has of late years played so important a part in microscopy as the chloride of gold. By means of it Conheim first demonstrated the terminations of the nerves in the cornea; and since it has been very generally used, particularly in investigations of the nerves. Its application is very difficult, and it is only after a long series of experiments and failures that proficiency is obtained.

Having had considerable experience with this re-agent in the laboratory of Professor Stricker, in Vienna, and having obtained some very satisfactory results, I hope that a few words on its application may not be out of place. The chloride should be dissolved in distilled water, and the solution

should never be stronger than the half of one per cent. The object to be examined should be as fresh as possible, and should remain in the fluid from three minutes to perhaps an hour, according to its affinity for the re-agent, during which time it assumes a pale straw color. If the piece be small enough to be readily acted upon, ten or fifteen minutes is almost always sufficient. It is then laid in distilled water, to which just enough acetic acid has been added to give it the faintest possible reaction. In two or three days it will have become purple, verging sometimes on blue, sometimes on red; the latter is the least favorable. The preparation is now enclosed in glycerine, and improves for several days as the color becomes deeper and as the finest fibres are the last to be affected. If the experiment has succeeded, for it sometimes unaccountably fails, the picture presented is one of the most beautiful and instructive that can be imagined. The nerves, muscular fibres and fibrous tissue appear black on the purple background. Epithelial cells are also colored, but not so well as by nitrate of silver.

Although the color makes fibres visible which are so fine that they can be seen by no other method, it does not determine their character. To prove beyond all doubt that a minute fibre is a nerve, we must be able to follow it to a larger branch. On a very successful preparation of the cornea of a frog, I observed nerve fibres of such minuteness that with a magnifying power of nearly two thousand diameters it was impossible to follow them to their terminations. I particularly endeavored to verify the connection, asserted by Kühne but not generally accepted, between the nerves and the corneal corpuscles. With every advantage, such a connection is very difficult to prove. I often thought I had found one; but, when examined by a higher power, and placed in different lights, it proved to be only apparent, except in a single instance, and then it was not certain that the fibre in question was a nerve. I mention these facts as proofs of the value of the method, for it is no paradox to say that the better the preparation the more difficult it is to obtain results. As the magnifying power is increased, elements come into view, which, by inferior methods, are never seen; and spaces are discovered between bodies supposed to be in connection. The use of the chloride of gold, however, is not yet thoroughly understood, and offers a large field for original investigation.

[The preceding article was written at the

suggestion of Prof. Stricker, of Vienna, by whom it has been examined and fully approved.—Ed.]

# TYPHOID FEVER. PERFORATION OF THE SMALL INTESTINES AND CONSEQUENT PERITONITIS. DEATH.

Read before the Boston Society for Medical Observation, January 18th, 1869, by A. L. HASKINS, M.D.

P. C., aged 36 years, laborer, born in Ireland, and residing at 88 Cove St., came under my care Sept. 6th, 1868. Patient states that he has always enjoyed good health, but for the past seven days has not felt so well as usual. Has suffered from constant headache, occasional sharp pains in back and limbs, inability to sleep and anorexia. Has been much disturbed by tinnitus aurium, and his hearing has been remarkably impaired; has also had several attacks of vertigo, and has complained of a sense of weakness, at times so much that he could hardly stand. Six days after the commencement of his illness he had slight epistaxis, and two or three quite severe chills, followed by fever. He was now for the first time forced to take his bed.

On the seventh day of his illness I saw the patient for the first time, and the following is the report of his condition then. He was in bed, bathed in perspiration, skin quite hot, countenance flushed, intelligence good. Has headache, and pain in nearly every part of body. Has some cough, with slight expectoration. Is troubled with a ringing sensation in ears, and is quite deaf. Feels very weak, has no appetite, and cannot sleep. Has much thirst. Bowels regular. Pulse 100, regular, not strong. Tongue red at tip; the remainder covered with a thin, white coat, through which the papillæ appear quite prominently. Respirations 22. The chest and upper part of the abdomen are studded with numerous rose spots. An examination of the chest discovered frequent sibilant and sonorous râles throughout both lungs. The sounds of the heart were normal. The liver of usual size, but the spleen was found considerably enlarged.

The patient, who was in a small, ill-ventilated room, was placed in the largest room at command. He was put upon a diet of milk and beef-tea. To insure sleep, a Dover's powder was ordered at bedtime.

*Eighth day.*—Had a comfortable night. Perspires freely. Skin quite hot. Tongue has some coat. Has but little desire for food. Cough and expectoration increased. Upon

examination of the lungs, numerous mucous and sonorous râles were heard, especially at the bases of these organs. The urine was found loaded with urates. There was also a trace of albumen discovered. Half a drachm each of the syrup of squills and nitric ether was ordered to be given every four hours, and the Dover's powder to be repeated at bedtime.

*Ninth day.*—Did not sleep well last night. Was in much fever. Skin is now quite hot, and patient perspires freely. Coughs much. Feels very restless and weak. Has no pain anywhere. One dejection this morning. Passes urine freely. Pulse 110. Tongue coated and dry. Respirations 26. Pulmonary symptoms as yesterday. Spleen more enlarged. Chest and abdomen still studded with rose spots. Slight tympanites of abdomen, but no tenderness. Patient is to have one grain of quinine four times daily, and is to take two ten-grain Dover's powders at night, if necessary.

*Tenth day.*—Went to sleep last night after the second powder. Cough somewhat diminished. One natural dejection yesterday. In considerable fever last night.

*Eleventh day.*—Rested well. Cough still considerable. Has some headache and slight nausea.

*Fourteenth day.*—Symptoms have continued much the same for the past three days. Is unable to sleep at night without the Dover's powder. Has an exacerbation of fever every night. Cough now very slight. Has some headache and considerable thirst. Bowels regular, and dejections natural. A few rose spots still visible. No delirium. No abdominal pain or tenderness. Perspires freely. Pulse 112, regular and stronger. Tongue has lost much of its coating, but is quite dry. Respirations 20. May omit the squills. To take one half a drachm each of nitric ether and the solution of acetate of ammonia every four hours.

*Seventeenth day.*—Is much improved. No cough. Sleeps well. Appetite better. Pulse 100, regular and quite strong. Tongue moist, and but slightly coated. Rose spots have entirely disappeared. Bowels regular. Spleen still very large. Omit the Dover's powder.

*Twentieth day.*—With the exception of weakness, feels quite well. Pulse 100. Tongue clean. Skin moist. Urine normal. Omit the fever mixture.

*Twenty-third day.*—Is gaining strength. Functions all quite normal. Febrile symptoms have nearly disappeared. May have a small piece of beef-steak.

*Twenty-seventh day.*—Some fever last night. Spleen still much enlarged.

*Thirtieth day.*—Sat up for the first time to-day. Omit quinine.

*Thirty-fourth day.*—Is up and dressed.

*Fortieth day.*—Says that he feels as well as ever. Pulse 80. Tongue clean. Bowels natural. Appetite good.

*Forty-sixth day.*—Has been out to-day.

*Fifty-third day.*—Was seized last night with pain in the right hip. The pain seemed to originate at a point midway between the trochanter major of the femur and the tuberosity of the ischium, and extended downwards to the popliteal space. The pain was of a darting character, and was increased when pressure was exerted upon the course of the sciatic nerve. Patient has considerable fever. Pulse 100. Tongue normal. Hot fomentations were applied along the seat of pain, and one grain of opium was ordered to be given three or four times daily, according to the pain. Patient has been about during the past week, but not at work, although he felt quite able. Asserts that he has been cautious in the use of food, and has committed no excesses of any kind.

*Fifty-fourth day.*—Pain much relieved. Some fever. No appetite. Pulse 100. Tongue with slight coat. No abdominal pain. One normal dejection to-day.

*Fifty-sixth day.*—Feeling quite well, but has occasional pain in the right hip. Pulse still 100. Skin quite hot. Spleen to be felt below the ribs on full inspiration.

*Sixtieth day.*—Feels nicely, and wishes to sit up. Pulse 98.

*Sixty-second day.*—Does not feel so well to-day. Pulse 98.

*Sixty-sixth day.*—During the four previous days I had not seen the patient, but on visiting him I learned the following history. During the whole of the day of my last visit to the patient, and also during the following day, he continued to feel unwell. Was dull and feverish. During both days he kept his bed. On the morning of the sixty-fourth day, he ate for breakfast a small piece of milk-toast. For dinner, he sucked the juice from a small piece of beef-steak, and for supper he took only a cup of tea. After drinking his tea, feeling rather tired and sleepy, he directed his friends to retire from the room, as he desired to go to sleep. He then turned upon his right side, when he felt something give way in the abdomen, and at the same time experienced a violent pain in the right iliac region. The pain soon extended over the whole abdomen. The patient had rigors, followed by fever. After three hours of intense pain,



the patient got relief after taking two powders which were ordered by a physician who had been called in.

The next day he had, at times, severe pain in the abdomen, of the same character as on the previous night; had also several attacks of vomiting. Bowels were very tender to the touch.

On the following day, the sixty-sixth from the commencement of the fever, and the second day after the appearance of these urgent symptoms, I saw the patient again. He was in bed, lying on his back, with the lower extremities drawn up. His countenance was expressive of great pain and prostration. The abdomen was somewhat tympanitic and tender to the touch. No dulness of the abdomen was detected on percussion. Skin warm and moist. Tongue dry and red. Pulse 90, regular, but weak. Respirations 24. Patient had already vomited several times during the morning, and had been much troubled with flatulence. Upon the recommendation of a so-called doctress, he had taken some castor oil and an enema. Several copious dejections followed their administration. The patient was directed to remain absolutely quiet, and in the supine position. Opium was given in one-grain doses every four hours. Beef-tea was ordered to be taken in small quantities.

*Sixty-seventh day.*—Slept quite well last night. Is now fully under the influence of opium. Abdomen more tympanitic. Some dyspnoea. Pulse 96. Tongue dry. Respirations 96. Warm turpentine stupes were directed to be placed over the abdomen.

*Sixty-eighth day.*—A comfortable night. One natural dejection this morning. Abdomen still more tympanitic. Pulse 109. Respirations 26.

*Sixty-ninth day.*—A restless night. Much oppressed for breath. Abdomen excessively distended. Pulse 110, feeble. Respirations 32. Brandy, in small doses, was ordered. In the evening, when I saw the patient a second time, he was in great distress. The abdomen enormously distended. Tympanitic resonance extends nearly to the mammae. Hepatic dulness cannot be distinguished. Abdomen very tender to the touch. Has vomited several times during the day. Countenance is now collapsed. Intelligence good. Skin cool and moist. Pulse 136, very feeble. Brandy, in two-drachm doses, was ordered every half hour. The patient seemed to rally a little after the administration of the brandy, but towards morning he began rapidly to sink, and died.

All efforts to procure an autopsy proved unavailing.

In the above case we have nearly all the symptoms of typhoid fever. We have the prodroma of headache, dizziness, tinnitus aurium, malaise and anorexia; then we have the chill, the epistaxis, the rose spots, the bronchitis, the enlarged spleen, and the evening exacerbation of fever. The diarrhoea, the tenderness in the right iliac region and the delirium are only wanting to complete the category of symptoms of a typical case of typhoid fever. The patient made a good recovery, and one week after his apparently complete restoration to health, he was seized with the ordinary symptoms of sciatica. The sciatic pain soon subsided, leaving only the considerable fever and the enlarged spleen to lead to the suspicion that the typhoid poison still lingered in the system.

On the sixty-fourth day from the commencement of the sickness, and on the eleventh day after the second attack, and in the absence of diarrhoea or abdominal pain or tenderness or any other symptom pointing to a severe intestinal lesion, the patient was suddenly seized with a violent pain in the right iliac region, and there followed all the sad train of symptoms of a peritonitis occasioned by a perforation of the intestines.

Perforation of the intestines and consequent peritonitis is one of the most dreaded and fatal complications of typhoid fever. Perforation is quite as apt to occur in the mildest type of the disease as it is when the symptoms assume a far more violent character. The perforation occurs in those parts of the ileum occupied by Peyer's patches, and takes place either during the stage of sloughing or ulceration of these glands. The inflammation extends either directly to the peritoneum by means of the softening of the mucous and muscular coats of the intestines, or it approaches the peritoneum more slowly by means of the ulcerative process. The inflammation having reached the serous coat of the intestines, a local peritonitis is set up, lymph is thrown out, and in many instances the part in which the local peritonitis has arisen becomes adherent to some other portion of the peritoneal coat, and thus a perforation is prevented. In still other instances such an adhesion does not take place, the peritoneal coat is perforated and the contents of the intestines are thrown into the abdominal cavity and general peritonitis is induced. In this tendency of the peritoneal coat to throw out lymph and become adherent to the part immedi-

ately contiguous, we see a wise and conservative provision of nature, without which perforation in typhoid fever would manifestly far more frequently occur.

As regards the frequency of cases of perforation of the intestine in typhoid fever, we have the statistics of Heschl, who found in 1271 cases of death from this fever that perforation occurred 56 times, or in about 1 in 23 of the fatal cases. Murchison reports that of 270 fatal cases occurring in France, 25, or about 1 in 11 of the deaths, were due to perforation. Of 165 cases of death from typhoid fever occurring in England there were 35 perforations, or 1 in 5 of all the deaths were due to perforation. Of 703 cases of autopsies of typhoid patients in Germany, 70 perforations were found, or 10 per cent. The frequency of cases of perforation, at times, is worthy of note. At Tübingen Griesinger observed 4 cases of perforation in six years, 3 of which occurred in one year. At Zurich he observed 6 cases in one year with a small number of typhoid patients, while at another time during the space of thirteen months there occurred no cases of perforation, though the number of typhoid patients was very great. The same fact has been verified at Vienna. In 1843 the cases of perforation were in proportion of 1 to 10, in 1848 1 to 99, in 1858 1 to 25, in 1861 1 to 14. Perforation occurs twice as frequently in men as in women, and in children the percentage of cases of perforation is 1 in 100 of the cases of death.

It is not to be inferred that every case of peritonitis in typhoid fever is due to perforation of the intestines. Peritonitis may arise in the first stage of the fever from an excessive infiltration of Peyer's patches. It may arise from great enlargement, softening or suppuration of the mesenteric glands. It may be occasioned by the opening of an abscess in the spleen or wall of the bladder into the abdominal cavity. It may arise from a dysenteric or gangrenous process in the intestines, or finally it may occur spontaneously in the course of the fever, without any apparently exciting cause.

*Symptoms of Perforation.*—The symptoms by which perforation of the intestines and subsequent peritonitis become known in typhoid fever are usually quite characteristic, and very rapidly developed. Without any prodromic symptoms the patient experiences a sensation as if something had given way in the right iliac region. He is seized with a violent pain in this locality, which soon extends over the whole abdomen. Chills, fever and vomiting follow. The ab-

domen becomes tender to the touch, and at times excessively tympanitic. The patient does not throw himself about as in an attack of colic, but lies quietly in bed with lower extremities drawn up. All motion is avoided. Every effort, as in coughing, causes an expression of pain to come over the countenance. The patient speaks softly and avoids a deep inspiration on account of the pain which the movement of the intestines occasions him. The pulse becomes small and rapid. The countenance becomes collapsed, the extremities cool, and soon death brings relief to the sufferer. In other cases the symptoms are more slowly developed. In typhoid patients in a state of partial or complete unconsciousness, a sudden general collapse may be the first indication of the lesion which has occurred. In such cases excessive meteorism and the distortion of the countenance produced by pressure upon the abdomen, and especially in the ileo-cæcal region, are symptoms of great value in the diagnosis of the disease.

*Prognosis.*—The prognosis in cases of perforation of the intestines, is always extremely unfavorable, and in all cases of subsequent general peritonitis the prognosis is almost invariably fatal.

*Treatment.*—The most rational treatment would seem to be prophylactic. Whether the symptoms in typhoid are of a severe or a mild type, whether the disease is in its earlier stages, or convalescence has been established, this complication is the one most to be feared, and should be guarded against by every possible means. Especial attention should be devoted to the diet of the patient, and nothing should be taken into the stomach which will irritate this organ or any other portion of the intestinal canal. Whenever in the course of the disease the stomach becomes irritated or the discharges from the bowels become too frequent, these symptoms should be, if possible, promptly relieved. In cases, also, where the fever is complicated with bronchitis, the cough should be moderated, as undue exertion from coughing, vomiting, or straining at stool, or violent action of the intestines, may occasion a perforation of the peritoneum beneath an ulcerated Peyer's patch. On the same principle the patient should be cautioned against any undue exertion, and should not engage in his usual avocations till his former health has been fully restored. The only treatment which offers any chance of success after perforation has occurred, is absolute rest for the body, the withholding of all solid food and of any considerable quantity of fluid from

the stomach, the avoidance of all cathartics and clysters, and of everything which may provoke the peristaltic movement of the bowels, and finally the free administration of opium. This drug is our sheet-anchor in this fearful complication. Opium should be given in very large doses, and sufficiently often to perform the double office of keeping the intestines in a state of repose and of alleviating the excessive pain which the patient suffers.

### SEROUS CYST OF THE RECTUM.

By S. W. TORREY, Beverly, Mass.

ABOUT the first of January, 1869, I was called to examine an infant son of Mrs. C., of Beverly, for what was described as "a falling of the bowel," which had been observed from the time of birth, two months before. On first looking at the anus there was nothing abnormal to be seen, but as I held the nates widely apart the child was seized with a sudden spasmodic bearing down, and after a few screams there appeared at the anus a globular, fluctuating tumor, blocking up the whole passage, so that the feces, which were expelled at the same time, passed out in thin sheets between the tumor and the anterior wall of the rectum. A digital examination proved that the tumor was attached to the posterior wall of the gut—its lower extremity, except when the mass was forced down by the child, being an inch and a half above the verge of the anus, and its whole attachment nearly three and a half inches in circumference. On puncturing it with an exploring needle about an ounce of thin, serous fluid escaped, and a diagnosis of a serous cyst lying between the mucous and muscular coats of the rectum, was arrived at. The sac filled again rapidly, and in two weeks there was a renewal of the previous symptoms—viz., descent of the tumor during defecation, accompanied with agonizing pain—and added to this, increasing dilatation of the sphincter ani, which gradually lost its contractile power, from the continued pressure of the tumor upon it. There was also now a prolapse of the anterior wall of the rectum, and a considerable amount of inflammation of the mucous membrane, arising from continued contact with the clothing. Three weeks from the time of puncturing I passed a seton through the lower part of the tumor, hoping for adhesive inflammation and obliteration of the sac. This treatment bids fair to be permanently successful—the state of the case at

this date (May 21st) being as follows:—withering away of the cyst, rare appearance of the tumor outside the anus, perfect action of sphincter, no inflammation—the child gaining flesh, and as free from suffering as other infants of his age.

### REPORT OF A REMARKABLE CASE.

By AMOS SAWYER, M.D., Hillsboro', Ill.

DURING the spring of 1868, Mr. Adam Vettle, of Nokomis, Montgomery Co., Ill., bred a mare to his stallion. A few nights thereafter (he *thinks* a week), his jack "broke loose," and staid with the mare until morning—she still being in heat. This spring she gave birth to twins—one a *mule*, the other a *horse* colt; both alive and doing well.

May, 1869.

## Reports of Medical Societies.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

CHARLES E. VAUGHAN, M.D., SECRETARY.

The annual meeting was held at Waltham, April 14th. After the usual business, the subject of autopsies ordered by coroners, and the collection of the established fees, was introduced. After an animated discussion, a committee of three was appointed "to wait upon the County Commissioners, to discuss the subject with them, with a view to establishing a basis for future action in such cases."

Dr. Hosmer, of Watertown, read a paper upon the *Abuse of the Alimentary Canal*, of which the following is an imperfect summary:—

Physicians are less liable to be called to account for errors in treatment than surgeons. This should make them more conscientious. An honest physician will often acknowledge to himself that he has erred in the past, and done harm instead of good, with the best intentions. He should, therefore, be careful that his present theories are correct, as far as careful, independent thought can make them so. We often accept tradition too blindly.

Do not many prescriptions, even of excellent practitioners, overlook the importance of integrity of the alimentary canal to health?

The day of heroic practice has gone by. The *materia medica* still retains a measure of the veneration of the past, although we acknowledge, in theory, that mere medica-

tion is not the most important part of treatment.

In desperate cases, the physician acknowledges that the patient's chance of life depends upon his vital power. Stimulants and nutritives take, then, the place of drugs.

How do we treat the phenomenon of cough, for instance? Inquiries show that into four fifths of the ordinary prescriptions for cough, squill and ipecac enter, often in large proportion. Senega, antimony and sanguinaria often occur. Can we show any tolerable proof that these so-called expectorants really act as such, or even affect cough favorably? Do we not use them in accordance with popular prejudice and tradition? (Cases quoted of expectorant treatment, in cough dependent upon nervous causes.)

Cough is a modified expiratory effort. It may be produced by—1st, Mechanical irritation. 2d, Pseudo-membranous or ulcerative affections of the larynx or trachea. 3d, As a general rule, all inflammations, acute or chronic. 4th, Dilatation of bronchi and emphysema. 5th, Affections of lung tissue, as tubercle, cedema, &c. 6th, Paroxysmal affections. 7th, Reflex action, or sympathy. 8th, Hysteria, &c.

Expectorants are vaguely said to stimulate the vessels of the lungs. Yet they can be applied to excessive or deficient secretion.

What does analogy show? We can see that evacuants may be useful in unloading an embarrassed alimentary canal; stimulants, in improving an enfeebled circulation, &c. How can expectorants be effectual against cough, which arises from many diverse causes? Examining these causes, we must conclude that they can only affect a cough arising from a bronchitis, acute or chronic. In such a case, if they increase secretion, must they not increase cough, which is an effort to remove an already existing accumulation? Is there not risk in increasing the amount of morbid secretion?

Secondly. Expectorants possess an emetic and cathartic action, sometimes in small doses. In large, they produce prostration, and even fatal gastro-enteritis. Even in small doses they have a strong tendency to produce nausea, impair appetite, retard digestion. They interfere with the nutritive process, upon which health depends.

The modern formula declares disease to be a state of deficiency of some of the elements of health. Convalescence involves

an increase of reparative process as compared with waste, which imposes an unusual tax upon nutrition. If  $R$  = chance of recovery,  $V$  = vital power, and  $D$  = disease, then  $R = \frac{V}{D}$ . Now, whatever diminishes  $V$ , or increases  $D$ , diminishes the value of  $R$ , i. e. the chance of recovery. Expectorants have a tendency to decrease the numerator. They are not inert.

Thirdly. Direct experience convinces me of the inefficiency of expectorants.

Fourthly. The testimony of patients, an indirect experience, confirms the same opinion.

Fifthly. Many systematic writers openly or covertly question the existence of such a class of agents.

Dr. Sullivan, of Malden, described a case of rigidity of the os uteri, which has been reported in the JOURNAL.

Dr. Willis, of Waltham, reported a case of convulsions occurring a week after labor. Condition had been good until seizure. No albuminuria. Case terminated fatally in coma.

#### AMERICAN MEDICAL ASSOCIATION.

(Continued from page 286.)

THE Committee on the Nomenclature of Diseases have the honor to report that it has examined the "Provisional Nomenclature of the Royal College of Physicians" of London, and is of the opinion that it is desirable for this Association to recommend and adopt the same for general use in this country, with such modifications as, on deliberate consideration, may appear to be necessary. The following resolutions are, therefore, submitted:—

1. *Resolved*, That a special committee of fifteen be appointed by the President to take this subject into deliberate consideration, and to report at the next annual session what alterations, if any, are necessary to adapt the proposed nomenclature to general use in the United States.

2. That this committee be authorized to fill up any vacancies which may occur upon it.

3. That the Committee on Publication be authorized to publish, for general distribution, one thousand copies of the English and Latin portions of this nomenclature, under the designation of the Proposed Nomenclature, prefacing the same with such remarks as may be deemed necessary to secure the criticism and co-operation of as large a number of American medical men as practicable.

4. That the committee hereby appointed be directed to draw the attention of the

Surgeon General of the army, of the Chief of the Bureau of Medicine and Surgery of the navy, and of the Superintendent of the Census, to the question of their official adoption of the proposed Nomenclature; to invite them to appoint whom they see fit to represent them on this committee; and to solicit such coöperation as may be necessary to accomplish the purpose desired, viz.: the final adoption of such nomenclature and classification as will receive the conjoint approval of the official medical bureaus of the Government and of the general profession.

STANFORD E. CHAILLE, M.D., Chairman.

*Committee*—S. E. Chaille, Louisiana; J. J. Woodward, United States Army; A. B. Palmer, Michigan; F. G. Smith, Pennsylvania; J. F. Hentis, Alabama.

The following Committee of fifteen was appointed:

Francis G. Smith, Chairman; J. J. Woodward, U. S. A.; R. F. Mitchell, Alabama; A. B. Palmer, Michigan; S. E. Chaille, Louisiana; L. P. Yandell, Jr., Ky.; Austin Flint, New York; Geo. B. Wood, Pa.; H. S. Dickson, Pa.; E. Jarvis, Mass.; Theo. Parvin, Ind.; W. M. McPheeters, Mo.; E. M. Snow, R. I.; N. Pinckney, U. S. N.

Dr. Gaillard, Ky., offered the following, with preliminary remarks:—

*Resolved*, That the adoption of a uniform rate of collegiate fees—\$120 being the maximum—be accepted as the sentiment and desire of this Association.

Dr. Logan, of Alabama, moved to amend by inserting \$140.

After considerable discussion, the fees were placed at \$120.

Special committee on the relative advantages of Syme's and Pirogoff's mode of amputating at the ankle—Dr. G. A. Otis, U. S. A., chairman; Dr. J. D. Holloway, of Louisville, Ky.

Proposed by J. J. Woodward. Approved.

Dr. Bemis presented from Dr. John Waters, of St. Louis, Mo., a paper on the Doctrines of Force—Physical and Vital.

Dr. A. M. Pollock, of Pennsylvania, presented this amendment to the constitution:

*Resolved*, That all county medical societies shall be required to elect a committee annually, whose duty it shall be to examine all applicants for admission as students under the tuition of its members, and that no member of any county medical society shall receive any such applicant until such applicant shall present a certificate from said committee, testifying that he has a good English education, and a sufficient knowl-

edge of Greek and Latin to enable him to pursue his studies with advantage.

Laid over under the rules.

Dr. Toner, D. C., moved that a committee on variola be appointed—Dr. Joseph Jones chairman. Adopted.

Dr. Pinckney, U. S. N., made statements respecting relative grades of rank. The paper was ordered to be spread on the minutes.

Association adjourned to meet at 9 o'clock, A.M., Friday, May 7.

FRIDAY, MAY 7, 1869.

The Association met at 9 o'clock, Dr. Baldwin in the chair.

Reading of the minutes omitted.

In yesterday's report, the paragraph which defines the rates of fees in medical colleges is corrected so as to read "the maximum was established at one hundred and forty dollars, and the minimum at one hundred and twenty-eight dollars."

Dr. Joseph Jones, Louisiana, presented a number of specimens of pathology, anatomy, and natural history. The explanations were very interesting, and received with applause.

On motion of Dr. F. G. Smith, of Pennsylvania, the following resolution was unanimously adopted by a vote of the members present, standing, as a mark of respect:

*Resolved*, That the thanks of the association are justly due and are hereby tendered to the President for the uniform kindness and courtesy with which he has presided over its deliberations, and to the Committee of Arrangements, the physicians and citizens of New Orleans for the generous hospitality and fraternal kindness with which we have been received and treated during our sojourn in their city, with the assurance that the memories of this visit will always be among the brightest and most enduring of our lives.

On motion of J. P. Moore, of Mississippi, the following preamble and resolution were adopted:

Whereas, the contract system is contrary to medical ethics;

*Resolved*, That all contract physicians, as well as those guilty of bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners.

The following reports of the sections followed:

Section on Meteorology, Medical Topography and Epidemics reported. Paper

accepted and referred to the Committee on Publications.

Sections on Practical Medicine and Obstetrics reported and were accepted, and referred to Committee on Publications.

And the report on the training of nurses was accepted and the resolutions adopted.

Section on medical jurisprudence, hygiene and physiology reported. Committee continued for next year. Report accepted and referred to the Committee on Publications.

Section on Surgery proposed that their report be received without formality and be referred to the Committee on Publications. Adopted.

After being read, the report was accepted and ordered to be published.

Section on Psychology, the same disposition.

The President appointed Dr. J. M. Toner a committee of one, at Washington, D. C., to assist the Librarian of Congress to keep the books of the Association.

On motion for adjournment, the President delivered an address, which was unanimously accepted and ordered to be published in the transactions of the Association.

*Gentlemen*—Before I submit the motion just made, and which, when adopted, will practically close my official relations to this body, allow me to return you my most cordial and grateful thanks for the unvarying kindness which I have received at your hands. Whatever my future lot in life may be, the world holds no honors which to me can equal those conferred by you. The fraternal good-will which has so conspicuously marked your deliberations has been to me a matter of infinite satisfaction and pride, and will not be the least among the grateful memories which will gladden my heart as I may hereafter review the incidents of my official connection with you.

To win your judgment and approval, to hold up the dignity of fellowship, the usefulness of the association and the interest and prosperity of the profession at large have certainly occupied my most anxious thoughts since my elevation to this position; yet to cherish and promote the intimate and cordial relations of friendship between the individual members of this association against all sectional distinctions or geographical lines, has also been among the chief objects of my ambition and the earnest desires of my heart. Could I now believe that my efforts have contributed in the slightest degree to enlarging that harmony of sentiment and fraternal feeling which has been

so apparent throughout this meeting, I should feel that I had commenced at least to make some return for the great honor and kindness received at your hands.

It now only remains for me, gentlemen, to again express to you my thanks, to wish you a safe return to your homes and labors, a happy reunion with your friends and families, and to pronounce that sad word over which the heart of friendship would fain linger, as I bid you an affectionate farewell.

W. O. BALDWIN,

President A. M. A.

The Convention adjourned to meet in Washington, D. C., second Tuesday in May, 1870.

The Report closes with a description of a Steamboat Excursion enjoyed by the Delegates, which was evidently a most brilliant affair. Officials from outside the Medical Profession and ladies participated. The party landed at the celebrated plantation of E. Lawrence, Esq., where they were most handsomely entertained. On board the boat was music, dancing, feasting—apparently one continued round of festivities. Indeed, the reporter waxes so warm with sentimentality, that, our types not being "warranted to keep in any climate," we should be almost afraid to transfer his expressions to them. He closes with the following paragraph.—En.

With the return of the excursion to the city, the formalities attending the session of A. M. A. ended, and we are certain that we utter the sense of the entire party, that they have been gratified with every proceeding which has attended their visit hither. The courtesies, honors and attentions they have received, were peculiarly marked with the chivalry which characterizes the Southern people, and we hope that our guests may ever retain only pleasant reminiscences of their visit to this golden, beautiful and incomparable Crescent City. With many good wishes to them, we regretfully bid them adieu and *bon voyage*.

In the Provincial Hospital for the Insane, Halifax, N. S., the number of patients on the first day of the past year was 169; admissions during the year, 86; total, 225. The average daily number for the year was 190. Recoveries, 20, or 23 per cent. on the admissions. Deaths, 14, or 7.3 per cent. on the average number resident.

## Bibliographical Notices.

THE NOMENCLATURE OF DISEASES\*—*Drawn up by a Joint Committee appointed by the Royal College of Physicians of London.* Large 8vo. Pp. 327. With full Index. London: W. J. & S. Gollbourn. 1869.

WE received from London a few weeks ago a copy of this truly *great work*. Begun in 1857, it has occupied the time and thoughts of very many of the most eminent men in the profession, who, having been appointed from the various Colleges, Societies, and Departments, have labored untiringly through so many years, without pecuniary reward, to perfect this arduous undertaking—"a long, tedious, and difficult labor."

It contains a list of more than eleven hundred diseases, deformities, and injuries, grouped together according to their anatomical seats (singularly enough beginning with the small pox and ending with the large). Synonyms are given in five different languages—Latin, French, German, Italian, and English—a great service to whoever may have occasion to read or translate from any of these languages; and will greatly aid in "fixing definitely, for all places, the things about which medical observation is exercised, and in forming a steady basis upon which medical experience may be safely built."

That the book has defects undoubtedly will soon be discovered by the critics, and already it has been questioned whether it is not too elaborate for the busy practitioner. But there must of necessity be a beginning, and it is difficult to imagine how more care or labor could be bestowed in preparation, or a more judicious selection be made under the circumstances. It is to undergo decennial revision, when emendations, if required, can be made. "How far the Committee," says one of the reviewers, "have steered judiciously among the difficulties with which their path was beset, and how far they have been successful in their selection of names for use, time and the judgment of the profession will show. Meanwhile, it is manifest that, in their selection of names, as well as in their classification, their guiding principle has been convenience, rather than consistency; they have aimed, in fact, at making their nomenclature meet the re-

quirements of the profession at large, rather than at making it satisfy the critical few."

"The Nomenclature of Diseases" is published by authority of the Royal College of Physicians, and is now in full circulation throughout the United Kingdom. In order that every registered practitioner may have a copy, the British Government granted a gratuitous distribution of twenty thousand copies, at government expense, at a cost of seven or eight thousand dollars. This was done on the recommendation of Sir Thomas Watson and others, who stated to the Government that "many members of the medical profession, especially in the provinces, could not, from their needy circumstances, be expected to buy the book; though called upon by Government to give gratuitously certificates of death" (a picture, by the way, of the pitiable condition of the profession hardly to have been expected, even in England).

The Committee state in the preface that they have prepared a Nomenclature suitable to England, and to all countries where the English language is in common use. Would it not be for the public advantage to adopt the work at once, as a standard, in this country; that we may as soon as possible make sure that while using the same names we are speaking of the same things as our brethren in Europe?

A copy costs from two to three shillings sterling, according to binding; could not some enterprising bookseller import a "cheap edition"? Surely, few in the profession here are so badly off as not to be able to pay half a dollar in gold merely to gratify a laudable curiosity, if nothing more, in examining the results of the united labors of so many eminent men.

B. E. C.

## Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 27, 1869.

### THE DOCTORATE OF MEDICINE.

A SLIP was some time ago sent us from the *College Courant*—the paper conducted by under-graduates of Yale College—consisting of a communication referring to the Medical School of that College.

It appears that in the year 1834, at the May session of the General Assembly of the State of Connecticut, an act was pass-

\* This paper was received by us before the report of the meeting of the American Medical Association, where reference was made to the topic of which it speaks.

ed, providing that the Medical Institution established in Yale College, "pursuant to an agreement between the President and Fellows of Yale College and the President and Fellows of the Medical Society of Connecticut, should be known and acknowledged by the name of 'The Medical Institution of Yale College.'"

"By the provisions of this act, there were to be not less than four nor more than six professorships established in the Institution, which were to be filled by persons nominated by a joint committee, appointed by the proper officers of the College, and the State Medical Society, and chosen by the President and Fellows of the College. This joint committee for making nominations, was to consist of an equal number of persons designated by the two parties to the 'agreement' referred to in the act, to wit, the College and the State Medical Society. The act provided for the necessary course of study to be pursued by the Medical student, and for the graduation of candidates for degrees; and here is precisely where the act in question is singularly *unique*, for a Medical Institution under the management of Yale College. A better designation of the Institution, under the act, would have been 'The Medical Institution of Yale College, under the management of the Medical Society of Connecticut,' for the act virtually confers upon the Medical Society the entire control and management of the Institution, so far, at least, as the conferring of degrees is concerned. What practical inconveniences have arisen from this singular provision of the act, I am not prepared, at this present writing, to say; but it is easy to see that they might be both numerous and vexatious.

"The committee for examining candidates for degrees is made to consist of the Professors of the Medical Institution of the College, and an equal number of the members of the Medical Society of the State; and the President of the Society is made, ex-officio, President of the examining committee, with a vote at all times, and a casting vote when there is a tie. And the Medical Society seems to have been so tenacious of its power to *control* the Institution, as against the Professors, in this matter of conferring degrees, that it was further provided, in case of the absence of the President from the examining board, that a President *pro tempore* should be appointed, with the same powers, by the members of the examining committee *chosen by the Med-*

*ical Society alone!* Another singular provision of the act, is the virtual limitation upon the President of the College against conferring any honorary degree of Doctor of Medicine, except upon the recommendation of the President and Fellows of the Medical Society.

"With a Medical Institution in Yale College, thus tied up and restrained of authority by such an unwieldy deliberative body as the Medical Society of the State, it is no wonder it should lack the vital force and energy of other similar institutions in the country. It matters not how successful and efficient the Medical Society may be in the matter of its own management, or how distinguished its position as compared with medical associations of other States; it manifestly has no capacity to superintend, much less control a Medical Institution like that of the Medical Department of Yale College. It might make a very good *legislative* body, but it is too cumbersome and unwieldy to exercise any *executive* function—the vital thing needed in all Medical Colleges."

It is easy to see that the regulation of the course of study as here described would not be likely to admit of sufficient flexibility to adapt the education of the student to the wants of his time. But, the examination for degrees by a Board more or less under the control of the State Medical Society, does not appear to us so objectionable. In fact, the only change we could wish in the arrangement for examination would be that of making the examiners consist entirely of a committee elected by the Medical Society. The most important and fundamental reform called for in this country, to secure to the public properly educated medical men, a reform sought by some of our most earnest and far-seeing educators, is a legal enactment in every State, placing the power of licensing or of authorizing to practise medicine in the hands of a Board of Examiners, who should be independent of the medical schools and colleges. In this way a check would be put to the cheapening of medical degrees, with the attendant depreciation of the standard of qualification, now too frequently the result of competition between different schools. The ceremony of conferring the diplomas would, then, perhaps require less mental reservation, when the Dean, *ore rotundo*, pronounces solemnly the



words *quos scio idoneos*. No one should be certified to the community as competent to practise so weighty a calling as medicine—to guard the lives of human beings—unless reasonably proficient in all its branches. What avails a knowledge of Theory and Practice to the medical man deficient in his surgical anatomy, when called upon to tie the femoral artery? or if not versed in midwifery, let his surgical skill be ever so great, how will he be able to meet the sometimes trying emergencies of the parturient process? Yet, is it not too often the case that a diploma is bestowed on one who can answer the interrogatories of a majority of the examiners before whom the candidate is required to appear?

At the last session of the American Medical Association it was proposed that the General Government should take the matter in hand, and determine the qualifications of medical practitioners for all parts of the United States. This proposal is well worth considering, and may, perhaps, be an improvement on the plan of having a separate board of examiners for each State. We do not array ourselves in opposition to it. But, it will be urged by some on the other side that each community—each State say—should be allowed to decide for itself what degree of Medical Education it is able to sustain. Such education costs money. The more advanced it is, the greater the expense incurred in acquiring it. Medical services have a market value in proportion to their supposed excellence. The metropolis attracts by its larger fees those whose ambition takes the widest scope. If, then, the laws provided that no man should practise medicine in any part of the United States whose learning and skill were not up to the level of a Paris *agregé*, many a country village with a *clientèle* of five hundred dollars per annum would be without its regular Doctor, while the old women, the quacks, and the patent medicine venders, would there have things all their own way. It would seem, then, that a National Board of Medical Examiners would have to adopt a standard not so high as to deprive the more scattered and poorer communities of reasonably educated medical advisers, while Massachusetts, for instance, would desire

a higher standard. We repeat the axiom, however, that whatever reform may be adopted, its fundamental principle should be that no one should be allowed to graduate in medicine who is *deficient in any of the branches of his calling*.

One other point we take this occasion to make. Medical education, we think, will never have a perfectly sound basis until Professors are made independent of the fees of their pupils—until each principal Professorship is established on a foundation ensuring adequate remuneration. No testamentary bequests would do more honor to the memory of the testator than such as would place the cardinal Professorships of an eminent Medical School on an independent footing. By the cardinal Professorships we mean those of Anatomy, Physiology, Materia Medica, Theory and Practice, Surgery, Obstetrics. A medical institution sustained in this way could raise its standard of education without consulting the number of pupils on its catalogue. And that standard being elevated, the best students—those intending to practise in the more favored communities—would seek the benefits of its instruction and the indorsement of its recommendation. Its examinations would render the inquisition of any general board of scrutiny a mere matter of form to its graduates.

#### MASSACHUSETTS MEDICAL SOCIETY.

MEMBERS are reminded that the annual meeting occurs next week.

#### PROGRAMME FOR TUESDAY, JUNE 1ST.

Ten o'clock, A.M. Operations, Surgical Visit, and Exhibition of Patients, at the Massachusetts General Hospital.

Ten o'clock, A.M. Operations, Surgical Visit, and Exhibition of Patients, at the City Hospital, Harrison Avenue, opposite Worcester Square.

Twelve o'clock, M. Meeting at Bumstead Hall (Music-Hall Building, entrance on Winter Street), where papers by the following gentlemen will be read:—1, Myxoma, or Hyperplasia of the Villi of the Chorion, by Alexander D. Sinclair, M.D., Boston; 2, General Management of the Insane, by Merrick Bemis, M.D., of Worcester; 3, Formation and Significance of Renal Casts, by Robert Thaxter Edes, M.D., Ilingham; 4, Physiological Action of Bro-

vide of Potassium, as determined by experiment on the lower animals and man, by Robert Amory, M.D., Brookline; 5, Microscopical Study of the Nervous System, by Samuel G. Webber, M.D., Boston. Adjournment at 2 o'clock.

Four o'clock, P.M. the Society will re-assemble in Bumstead Hall for the further reading of papers, and for their discussion. Adjournment at 6 o'clock.

During the afternoon the Warren Museum at the Mass. Med. College, North Grove Street, the Warren Museum of Natural History, 92 Chestnut Street, the Cabinet of the Med. Improvement Society, Perkins Building, and the Museum of the Boston Society of Natural History, Berkeley Street, will be open to the Society.

The Annual meeting of the Councillors will be held at the Rooms of the Society, Perkins Building, No. 12 Temple Place, at 7.30 precisely.

#### PROGRAMME FOR WEDNESDAY, JUNE 2D.

The Annual Meeting of the Society will be held in Bumstead Hall, Boston, at 10 o'clock, A.M., CHARLES G. PUTNAM, M.D., President.

*Order of Proceedings.*—1, Ordinary Business; 2, Reports of Committees; 3, Medical Papers and Communications; 4, A Case of Regeneration of Bone, by David W. Cheever, M.D., of Boston.

At 1 o'clock, precisely, the Annual Discourse, by ALFRED HITCHCOCK, M.D., of Fitchburg.

The Annual Dinner will be served in the Music Hall, entrance on Winter Street, at 2, P.M.

We are requested to say that The Institute of Technology will be open to members of the Society, on Tuesday afternoon, June 1st.

**CHROMIC ACID.**—In the *Bulletin Général de la Thérapeutique*, Dr. E. Magitot recommends *chromic acid* as an application to various affections of the buccal mucous membrane—such as all forms of stomatitis; and particularly the different kinds of gingivitis from that connected with dentition (as when, for example, it attends the eruption of a wisdom tooth), to ulcerative stomatitis. Aphthæ, and divers other ulcerations of the buccal mucous membrane, are also, he says, rapidly modified by this agent. But, the affection for which he specially recommends the acid is “alveolo-dental osteo-periostitis.”

**GANGRENE FROM EMBOLI.**—The *Archives Générales de Médecine* for March contains an account of an instance of embolism producing gangrene, reported by M. Gintrac—the patient a man of 75, previously in good health. It presents some points of analogy with the case of that affection reported in the number for May '20th of this Journal. There were marked points of difference, however, among the symptoms of the two cases. The seizure was sudden and in the night, in both. But, it was pain that opened the attack in the French case, while loss of motion was the prominent phenomenon in Dr. Lyman's case. In the former the power of motion was unimpaired to the last, and there was at first hyperæsthesia of the member first affected, followed in four or five days by insensibility. In the latter there was entire loss of motion and nearly complete loss of sensation from the first. In the latter there was some but not urgent pain in the calf of the leg. In the former the pain was lancinating and very acute—a cramp which ran up along the inside of the thigh.

In M. Gintrac's case both legs were gangrenous, the right having been attacked the 20th of May, 1868; the left four days, or rather nights, after. The report of the 25th of May was that the two lower limbs from knees to feet were cold, having a cadaveric feel. The temperature at the axilla was 38° (centigrade); at the knees, 32°; at the feet, 26°. The right leg and foot were insensible and blackish; the color of the left having become more purple. Respiration 36. Pulse 150, small and irregular. Same frequency and irregularity of heart's action. No pulsation felt in either femoral artery. Prostration very great. The patient died on the 28th, eight days after the first attack.

At the autopsy there were found in the left ventricle of the heart, which was softened, vegetations—some rounded, others pediculated. In the right ventricle there was a large, softened, and apparently recent, clot. The descending aorta contained an elongated clot, occupying nearly half the calibre of the vessel. At two fingers' breadth from the bifurcation of the aorta, there was a second clot, extending the en-

tire length of the right common iliac artery, and terminating inferiorly at the origin of the hypogastric, into which it sent a slender offshoot. It was greyish, fibrinous, non-adherent to the arterial wall. The external iliac was completely plugged by a "fibrinous concretion" analogous to that found in the heart. This plug adhered firmly to the artery. The left common iliac and left external iliac were very similarly obstructed. Other clots were found in the arterial ramifications of both lower extremities. The lining membrane of the arteries and veins of both lower limbs showed no trace of disease.

THE AMERICAN JOURNAL OF PHARMACY ON SVAPNIA.—Professor Procter—the Editor of the *American Journal of Pharmacy*—has been making experiments upon Svapnia, and gives in the May number of his Journal quite an elaborate account of them. He seems not to sustain some of the chief merits claimed for the preparation by its originator. Professor Procter justly remarks:—

"The argument for keeping svapnia a specialty has a certain degree of merit; it is true that novelties in pharmacy, even good novelties, are imitated by the unskilful, and for a time, especially if the manufacture is difficult, some public advantage may accrue from this primary uniformity. But we argue that in drugs like opium, or cinchona, or ipecac, all should be open and untrammelled in pharmacy. Did Sertürner patent morphia? or Pelletier and Caventon quinia and strychnia? But into these views business men do not care to enter."

If medical men will read this and similar papers in the *American Journal of Pharmacy* they will be convinced that Pharmacy has arrived at the position of a scientific specialty.

THE MEDICAL PROFESSION IN MASSACHUSETTS.\*—We have been favored with a copy of this paper, through the kindness of the author, whose name is a guarantee of its value. The beauty of its dress is sufficiently set forth by the name of its printer.

We make the following extracts:—

\* A Lecture of a Course by members of the Massachusetts Historical Society, delivered before the Lowell Institute, Jan. 29, 1869. By Oliver Wendell Holmes. Boston: Press of John Wilson & Son. 1869.

"I have illustrated the practice of the first century, from the two manuscripts I have examined, as giving an impartial idea of its every-day methods. The Governor, Johannes Secundus, it is fair to remember, was an amateur practitioner, while my ancestor [Dr. James Oliver] was a professed physician. Comparing their modes of treatment with the many scientific follies still prevailing in the Old World, and still more with the extraordinary theological superstitions of the community in which they lived, we shall find reason, I think, to consider the art of healing as in a comparatively creditable state during the first century of New-England. \* \* \* \*

"The name of Thomas Sydenham is as distinguished in the history of medicine, as that of John Locke in philosophy. As Barbeyrac was found in opposition to the established religion, as Locke took the rational side against orthodox Bishop Stillingfleet, so Sydenham went with Parliament against Charles, and was never admitted a Fellow by the College of Physicians, which, after he was dead, placed his bust in their hall by the side of that of Harvey.

"What Sydenham did for medicine was briefly this: he studied the course of diseases carefully, and especially as affected by the particular season; to patients with fever he gave air and cooling drinks, instead of smothering and heating them, with the idea of sweating out their disease; he ordered horseback exercise to consumptives; he, like his teacher, used few and comparatively simple remedies; he did not give any drug at all, if he thought none was needed, but let well enough alone. He was a sensible man, in short, who applied his common sense to diseases which he had studied with the best light of science that he could obtain.

"The influence of the reform he introduced must have been more or less felt in this country, but not much before the beginning of the eighteenth century, as his great work was not published until 1675, and then in Latin. I very strongly suspect that there was not so much to reform in the simple practice of the physicians of the new community, as there was in that of the learned big-wigs of the 'College,' who valued their remedies too much in proportion to their complexity, and the extravagant and fantastic ingredients which went to their making.

"During the memorable century that bred and bore the Revolution, the medical profession gave great names to our history. But John Brooks belonged to the State,

and Joseph Warren belongs to the country and mankind, and to speak of them would lead me beyond my limited subject. There would be little pleasure in dwelling on the name of Benjamin Church; and as for the medical politicians, like Elisha Cooke in the early part of the century, or Charles Jarvis, the "bald eagle of Boston," in its later years, whether their practice was heroic or not, their patients were, for he is a bold man who trusts one that is making speeches and coaxing voters, to meddle with the internal politics of his corporeal republic.

"At some time in the course of this century, medical practice had settled down on four remedies as its chief reliance. When Dr. Holyoke, nearly seventy years ago, received young Mr. James Jackson as his student, he pointed to the label drawers and bottles all around his office—for he was his own apothecary—and said, 'I seem to have here a great number and variety of medicines; but I may name four, which are of more importance than all the rest put together; namely, Mercury, Antimony, Opium, and Peruvian Bark.' I doubt if either of them remembered, that, nearly seventy years before that, in 1730, Dr. William Douglass, the disputations Scotchman, mentioned those same four remedies, in the dedication of his quarrelsome essay on inoculation, as the most important ones in the hands of the physicians of his time. \* \* \*

"I am not disposed to deny the occasional injurious effect of the materializing influences to which the physician is subjected. A spiritual guild is absolutely necessary to keep him, to keep us all, from becoming the 'fingering slaves' that Wordsworth treats with such shrivelling scorn. But it is well that the two callings have been separated, and it is fitting that they remain apart. In settling the affairs of the late concern, I am afraid our good friends remain a little in our debt. We lent them our physician Michael Servetus in fair condition, and they returned him so damaged by fire as to be quite useless for our purposes. Their Reverend Samuel Willard wrote us a not overwise report of a case of hysteria; and our Jean Astruc gave them (if we may trust Dr. Smith's Dictionary of the Bible) the first discerning criticism on the authorship of the Pentateuch. Our John Locke enlightened them with his letters concerning toleration; and their Cotton Mather obscured our twilight with his *Nishmath Chajim*. \* \* \*

"We have seen it [the medical profession] in the first century divided among clergymen, magistrates, and regular practitioners; yet, on the whole, for the time, and under

the circumstances, respectable, except when it invoked supernatural agencies to account for natural phenomena.

"In the second century it simplified its practice, educated many intelligent practitioners, and began the work of organizing for concerted action, and for medical teaching.

"In this, our own century, it has built hospitals, perfected and multiplied its associations and educational institutions, enlarged and created museums, and challenged a place in the world of science by its literature.

"In reviewing the whole course of its history we read a long list of honored names, and a precious record written in private memories, in public charities, in permanent contributions to medical science, in generous sacrifices for the country. We can point to our capital as the port of entry for the New World of the great medical discoveries of two successive centuries, and we can claim for it the triumph over the most dreaded foe that assails the human body—a triumph which the annals of the race can hardly match in three thousand years of medical history."

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CLASTIC ANATOMICAL MODELS.—A course of lectures has just been delivered at the Lowell Institute by F. G. Lemerrier, M.D., of Paris, "coöperator" of Dr. Auzoux, and Professor of the Polytechnic Association of Paris. The lectures were illustrated by, and in illustration of the preparations called "clastic anatomical models" made by Dr. Auzoux, of Paris. Dr. Lemerrier has representations—we are told—of all manner of things—man, woman, the gorilla, the horse, fish, bugs, snails, leeches, boa-constrictor, &c. &c.—numbering one hundred and fifty at the least calculation. His preparations are spoken of as promising to be valuable in assisting teachers of the subjects they illustrate. The models of plants, greatly magnified, have been particularly commended as useful to instructors and students of botany.

Dr. L., we are told, does not offer for sale less than his whole collection; but sends orders for copies of any of the models to Paris, whence they are forwarded. We have sought and give this information in the interest of scientific instruction. To procure any of these articles parties may

address Dr. F. G. Lemer cier—care of V. Colyer, Esq., curator of Cooper Institute, New York.

At the Pathological Society, London, Dr. Hermann Beigel exhibited a Living Specimen of Skin Disease hitherto not described, and to which he gave the name of Papilloma area-elevatum. The patient was a male child, twelve months of age, and born of healthy parents. The mother had noticed that different parts of the child's body became covered with small pimples of the size of a pin's head, which soon increased and formed patches, the largest about an inch and a quarter in diameter. These patches were raised above the surrounding skin, the latter not being inflamed. The patches were of a round shape, and their surface was smooth, as if covered with healthy skin. Others, particularly those on the face, were covered with a thin scab, which, when removed, showed a surface resembling a sponge, the effect of much hypertrophied infiltrated papilli discharging small quantities of serum and pus. On cutting with a knife or scissors, the patches proved nearly insensible, the child exhibiting no signs of pain. The microscope showed a great abundance of epithelial formation, the papilli being either extensively infiltrated or broken down. The child had not been, and was not, feverish, his health was pretty good, and he had no cachectic appearance. Dr. Beigel thought that this form of skin disease which he brought under the notice of the Society had not been described. The name he applied to it was intended to indicate the most prominent symptoms—namely, that the papilli are principally affected, and that the skin affection is of a round shape, areated, and raised above the level of the surrounding skin.

Dr. Tilbury Fox remarked that the appearance was due to sessile warts—a condition described by Dr. McCall Anderson as eczema marginatum. No new name was needed.

Dr. Hilton Fagge thought it rather unusual. There was a model in Guy's Museum like it.

Dr. Langdon Down had that day seen a similar case in the London Hospital.—*Medical Times and Gazette*.

REMARKABLE CASE OF AMENORRHEA. — (*Wiener Med. Wochenschrift*, xviii. 33, 1868.)

An apparently healthy woman, 31 years of age, married for 11 years, has, up to the present time, passed through six normal

confinements, in neither of which the usual loss of blood or lochial flow took place. *This woman had never yet menstruated* until after weaning her last child, when the catamenia appeared for the first time in her life, and reappeared after four weeks.

The only sign of conception was the nausea and vomiting, constantly occurring in the first few weeks.—*Jour. of Obstetrics*.

SUBCUTANEOUS MEDICATION FOR SYPHILIS.—In No. 14 of this JOURNAL we referred to Dr. Max Van Mons's application of Scarenzio's method. We are now able to give the following further particulars:—

A common subcutaneous syringe, having a capacity of from 7 to 10 drops, or more, is charged with a dose of from 10 to 40 centigrammes of calomel suspended in a very dilute mucilage of gum-arabic. This is injected into the subcutaneous tissue; an abscess follows, "of about the size of a hen's egg," which may be opened on the 8th or 10th day. One injection is almost always sufficient. All local treatment of the syphilis is suspended. Twenty-two cases (we spoke of only five in the previous notice) have been thus treated; salivation occurring in but one instance.

D. F. L.

POISONING BY STRAMONIUM SEED.—Dr. J. F. Freeman reports, in the *Chicago Medical Journal*, the following cases of poisoning: He was called to see a mother and two daughters, who had had paroxysms of ague, and had taken, as they supposed, fennel seed, but it proved to have been stramonium seed instead. When first seen the mother and daughter were raving like maniacs, while the other was rapidly sinking into coma. Tinctura opii was at once given, and morphia injected subcutaneously. The youngest girl recovered rapidly, but the others only after having taken several large doses of morphia. The recovery in each case was complete.—*Med. Record*.

CINCHONA IN JAMAICA.—From 8,000 to 10,000 plants of *cinchona succirubra* are ready for sale in the island of Jamaica, at the plantation at Gordon Town, this spring.—*Ibid*.

"TITRATION."—"Averaging" is the old term. A quantity of opium (e. g. 100 lbs.) is powered *en masse*, giving a morphine percentage of 7-10. Titrated fluid extract, made from this, is brought to a standard strength by adding morphia.

## Medical Miscellany.

**MASSACHUSETTS DENTAL SOCIETY.**—The annual meeting of the Massachusetts Dental Society was held on the 24th inst. in the hall of the Society, No. 12 Temple place, the president, E. G. Leach, D.D.S., in the chair.

The reports of the president, treasurer, and librarian of the society were read and accepted, after which the election of officers took place, with the following result:—

*President*, Dr. T. H. Chandler.

*First Vice President*, Dr. G. L. Cook.

*Second Vice President*, Dr. J. A. Salmon.

*Recording Secretary*, Dr. A. Brown.

*Corresponding Secretary*, Dr. E. Blake.

*Treasurer*, Dr. J. T. Codman.

*Librarian*, Dr. J. T. Moffatt.

*Microscopist*, Dr. T. B. Hitchcock.

The following delegates were then elected to attend the National Convention of Dentists to be holden at Saratoga on the 1st of August:—Drs. Hawes, Blake, Leach, Walters, Ham, Cook, Chandler, Stearns, Osgood, Thompson and Adams.

The usual committees were also chosen, after which the orator for the next year was balloted for, and Dr. L. D. Shepard was elected, and Dr. E. Blake appointed substitute.

At 12½ o'clock the annual address was delivered by Dr. A. A. Cook, of Milford; his theme being "The Coming Man of the Dental Profession."

The reading of essays followed the delivery of the address. Dr. T. H. Chandler read an essay on the subject of "Comparative Anatomy of the Teeth," and Dr. T. B. Hitchcock on "The Tarsar of the Teeth." Dr. J. T. Moffatt exhibited and explained an interesting case where a piece of the tooth of a boy 14 years of age, which had been broken off, was placed in its original position, and the tooth grew strong again. Dr. E. G. Leach also made some remarks in reference to cleaning teeth.

The society then adjourned at half-past three o'clock to the Tremont House, where the annual dinner was served. After dinner, speeches were made at the table by Drs. N. C. Keep, L. D. Shepard, Kidder, E. G. Leach, T. B. Hitchcock. Dr. J. T. Codman also read a humorous poem written for the occasion. The Society afterwards assembled in one of the parlors of the Tremont House, and an essay on "Dental Nomenclature" was read by Dr. J. T. Codman.

**MASSACHUSETTS BENEVOLENT SOCIETY.**—At a late meeting of the Council of the Massachusetts Medical Benevolent Society, its financial condition was stated to be excellent, and a considerable number of gentlemen from various parts of the State were elected members. All information concerning the object and the success of the Society's operations may be obtained from the Treasurer of the Mass. Medical Society at the time of the annual meeting in June.

**NORFOLK DISTRICT MEDICAL SOCIETY.**—Dr. Joseph Stehman, of Jamaica Plain, was chosen *Censor*. His name was accidentally omitted from the list furnished us last week.

Why is the Northern part of Maine like "the small of the back"? Because it is the lumber (lumbar) region!

Prof. Humphrey, of Cambridge, has published a lecture on the subject of *torsion*. He has for several months past abandoned the use of aen-pressure, and has *used torsion in all cases exclusively*, for stopping hemorrhage, meeting with the best results, even in amputations of the thigh or leg.—*Amer. Jour. of Obstetrics*.

**OPIMUM EATING.**—Mr. Horace Day, of New Haven, the reputed author of "The Opium Habit," has eaten over fifty pounds of opium. He discarded the habit in less than six weeks after he had "made up his mind."—*Medical Record*.

**TYPHOID CUTANEOUS SPOTS.**—The occurrence, in conjunction with an unusually copious roseolar eruption, of another one of a yellowish-brown color of the size of a two-dollar piece and over, is described by Zulehaur (*Berliner Klin. Wochenschr.*). The latter spots run into one another. They were only observed in very severe cases, which in the first, or in the commencement of the second seven days' period, terminate in death.—*Medical Press and Circular*.

**PATENT MEDICINES IN ENGLAND.**—Stamp-duty was paid in the year ending March, 1868, on no less than 8,060,754 packets, boxes, &c., of medicines, selling at one shilling or more. The tax produced £62,556.—*Medical Record*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Exhaustive Uterine Hemorrhage—Obstetrical Society Records—Case of Movable Cartilage in the Knee-joint—Case of Syph. Dis. Brain.

DEATHS IN BOSTON for the week ending Saturday noon, May 22, 110. Males, 54—Females, 56.—Accidents, 4—anemia, 1—asthma, 11—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 8—burns, 1—cancer, 1—consumption, 16—convulsions, 1—cystitis, 1—debility, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 8—typhoid fever, 2—gastritis, 1—disease of the heart, 2—intemperance, 2—jaundice, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 5—inflammation of the lungs, 9—marasmus, 6—measles, 1—old age, 3—pleurisy, 1—premature birth, 3—puerperal disease, 1—purpura hemorrhagica, 1—rheumatism, 1—scrofula, 1—suicide, 1—teething, 1—unknown, 7—whooping cough, 4.

Under 5 years of age, 37—between 5 and 20 years, 7—between 20 and 40 years, 21—between 40 and 60 years, 18—above 60 years, 17. Born in the United States, 79—Ireland, 19—other places, 12.

## Original Communications.

## THE PHYSIOLOGICAL AND THERAPEUTIC RELATIONSHIPS OF ERGOT OF RYE.\*

A Thesis for the Degree of Doctor of Medicine; and to which was awarded the First Prize of the Boylston Medical Society for 1869.

By FRANK W. DRAPER, M.D.

ONE of the first embarrassments which the student of medicine meets, and that almost at the outset of his course, is the great number and variety of the remedies presented, in the *Materia Medica*, for his study and use. The implements of his profession confuse him, alike by their multiplication and their complexity. From all regions of her great domain Nature gathers her remedial stores, and offers them, with profligate generosity, to him who will choose to employ them. Chemistry adds new products, and pharmacy evolves changes without number.

This unlimited variety, characterizing the *Materia Medica*, it is the tendency of the present medical generation to modify. Simplicity of treatment is now deemed more rational than studied complexity, and all the innovations which this century has witnessed are marked by this tendency. As compared with the customs of the fathers, the opposite extreme seems almost reached in a proper zeal in behalf of the restorative power of Nature. The professional verdict declares for the use of a limited number of remedies which are well understood, and bases its dictum on the revolutionized sentiment with regard to the treatment of disease. It is to the renewal of life that our remedies are to be directed, not to the exorcism of disease. Hence comes the dogma of expectancy. The natural history of diseases is more carefully observed and better understood, and men see that nature may be guided and aided, but not forced.

As the direct result of this advancement, come more rational methods of study into

the intimate nature and relationships of the means to be used for the accomplishment of the end in view. It is part of the business of modern science to examine carefully into the processes which individual drugs produce, to see what virtue may be in them, to take them out of the hands of empiricism, and to apply them, on well-established principles of action, to the treatment of disease.

It is proposed, in this paper, to present some of the more recent views of the physiological and therapeutical relationships of a pathological product of the vegetable kingdom—the *secale cornutum*.

The use of ergot as a therapeutic agent is by no means of modern date. Although there is no evidence that it was employed by the ancients, or that they recognized its virtues, it is well authenticated that scientific men of the middle ages were not ignorant of its powers. As early as A.D. 1096 it was mentioned and described by medical writers, and at a still earlier period its efficacy, under proper conditions, as a parturifacient, was known by the continental midwives and empirics.

It was not, however, until the middle of the last century that physicians consented to admit ergot into the list of the legitimate *materia medica*, and this recognition, at so recent date, was attended with even considerable difficulty. Its use was interdicted in France in 1774; but it was again introduced soon after, on this occasion with favor and with the royal seal of professional recommendation. Like most remedial agents, however, its success was variable until it could outlive the prejudicial conditions of novelty and the want of extended trial; and for half a century after its introduction among regular practitioners it was hardly heard of. But at the beginning of the present century, it fell to the lot of an American to put the use of ergot on a permanent basis as a therapeutic agent, and the name of Dr. Stearns, of New York, is thus associated with its early history. Since this time it has constituted a subject for scientific discussion of very great importance. Writers upon its powers have mul-

\* Prof. E. H. Clarke specially recommended this paper to us for publication, and it was furnished at our solicitation.—Ed.

tiplied, until the bibliography pertaining specially to ergot has acquired almost indefinite proportions. Its chemical composition, its natural history, its mode of action, its therapeutic uses and abuses have been made the subjects of inquiry, resulting in the most diverse opinions concerning its powers, its virtues and its ill effects. As has been the case with many, perhaps with most, of the really valuable remedial agents in their primitive history, ergot was thus in danger of an early decline, both in consequence of the disastrous effects resulting from its abuse in inexperienced hands, and as the result of the violent partizan opinions to which its use gave rise. In the light, however, of the best modern experience, developed from the skilful observations of such men as Parola, Bonjean, Wright and Brown-Séquard, this article properly assumes a place among the agents placed at the disposal of mankind for the relief of suffering, and it is thus rescued from the abuses of empiricism, since its manifold and often apparently contradictory indications are made to rest on a rational physiological and pathological basis.

Into the consideration of the general character, the mode of growth, and the botanical relationships of ergot, it is not proposed to enter in this paper. The chemical constitution, moreover, is as yet a vexed question among pharmacists; new constituents are discovered and urged as the active principles, and new characters serve to confuse the already accumulated mass of chemical facts.

Leaving, then, the study of the natural history and of the chemical constitution of ergot, we pass at once to the discussion of its physiological and therapeutical effects. For the more systematic consideration of its powers, it is proposed to adopt the plan as illustrated in the examination of kindred topics (Prof. E. H. Clarke's Lectures on the *Materia Medica*), and to investigate, in turn, the absorption of ergot, its passage through the system, the effects during its passage, its *modus operandi*, and, finally, the therapeutic uses and indications.

*Absorption.*—It is sufficiently clear that the active principle or principles of the *secale cornutum* must first be introduced into the system, by the circulation, before the well known and most obvious effects can manifest themselves. Experiments are numerous to prove that the specific action can take place only through this medium. When ergot is applied artificially to any part not in direct communication with the circulatory system, its action, so far as

known, is neutral, or at best but negative. Nor is there reason to suppose that we have any subtle narcotic principle, which by sympathetic nervous transmissibility or by reflex action affects parts at a distance from each other, as some authorities suppose to be the case in tartar emetic or in some of the active poisons. But we are justified by the strongest analogy in placing ergot with the very large class of medicines which must "obtain entry into the blood or internal fluids of the body before their action can be manifested."—(Headland on the Action of Medicines, p. 59.) Chemistry, too, although as yet in a crude and imperfect manner, assists in the demonstration of the absorption of ergot, its presence in the blood having been determined by Wright, in 1840.

The action of ergot is essentially the same, by whatever avenue of absorption it reaches the blood. Applied locally in external hæmorrhage, as in epistaxis, its action is still the same as when it is exhibited by the more indirect process of absorption in the stomach; by its vital action on the bloodvessels, instead of its chemical effect on the blood, it claims a place "in the first rank of liquid hæmostatics which do not coagulate the blood, its action being wholly dynamic."—(Bonjean, "Ergotine," p. 11.) It has also been found that when the drug is administered by the rectum in the form of suppository, or as an enema; by the vagina, or by any of the mucous surfaces, absorption, although slow, is certainly followed by positive results, distant as well as local. Nor must it be forgotten that equally with other media of absorption, the stomach, obviously the most ordinary and convenient organ for the process, presents the active principle of ergot to the blood, with a consequent ready manifestation of effects identical with those produced after administration through other tissues. The numerous experiments of Wright have demonstrated, also, that the effects of the drug are the same on animals, whether it be presented directly to the blood by injection into the large veins, or indirectly by osmosis.

Another, but less obvious confirmation of the absorption of spurred rye is found in the effect of the drug in certain cases on the foetus in utero. In discussing the use of this agent in parturition, Dr. Beatty (Contributions in Midwifery—art. Ergot) remarks that children, still-born after the exhibition of ergot to the mother in labor, vary very much in their condition and appearance from those born dead under



ordinary circumstances, and he attributes this difference not only to the mechanical causes, but, in many cases, "to the noxious influence of ergot exerted on the nervous system of the infant" through the mother. The distinguishing characteristics of the former state he indicates as follows: "general lividity of the surface, universal rigidity of the muscular system, producing the stiffened limbs and clenched hands in those infants in which life was extinguished, and the remarkable kind of alternating spasm and palsy which supervened in those which were resuscitated." These differential phenomena occurred, according to this author, after sufficient time had elapsed, in each case, to permit the influence of the ergot to permeate alike the maternal and the foetal systems. It is not difficult to trace a marked analogy between the symptoms of ergotism thus manifested in the child, and the effects produced under ordinary physiological conditions, to be hereafter described.

The time occupied in the absorption of ergot through the healthy mucous membrane and tissues of the stomach, before it reaches the blood, is variously estimated. That it is rapidly taken up, under favorable conditions, is sufficiently clear. Thus it is stated by Churchill (*Midwifery*, p. 263) that sixty grains of the powder of ergot administered in tedious labor, will manifest effects in from five to ten minutes, "the pains becoming stronger, longer and more frequent." In experiments reported by Parola (*Bibliothèque du Méd. Pract.*, p. 218) symptoms referable to the action of spurred rye were observed in a healthy adult male in two hours; and again in experiments on himself, nausea, headache, general lassitude and other indications of ergotism manifested themselves in one hour after taking fifteen grains of the powder. "Arnal's numerous experiments showed that the action of a drachm of ergot commenced within an hour." (*Stillé—Therapeutics*, vol. ii. p. 586.) Gubler states (*Commentaires Thérapeut.* p. 112) that "after an interval of ten minutes the characteristic phenomena of this convulsive poison may be seen to exhibit themselves." Upon animals the effects are much more rapid and decided. Well marked symptoms appear in from five to ten minutes, in the case of dogs, after the ingestion of large doses of ergot in powder. (Wright, *op. cit.*)

Of the changes which the drug undergoes in the stomach, before absorption, by which only the active and assimilable portion is selected, while the rest is rejected to be

passed on through the intestines, we have no demonstration. Nor is it positive that the stomach is alone engaged in the process of elaboration and of absorption; it is tolerably certain, indeed, that the extensive mucous tract of the intestines, containing myriads of absorbents, may have some share. Whether, in this process, the tissues engaged in osmosis are subjected to any local effect, is also a question yet to be decided. It seems clear, however, that no positively irritant effect is produced, and that whatever local changes result, are only transitory and unimportant. "If the dose is sufficiently large, the subject is not slow in experiencing nausea and vomiting, which may be considered as symptoms of a promptly generalized action." (Gubler, *loc. cit.*) Applied externally to the skin, ergot does not appear to produce any sensible effects whatever, but if placed on an abraded surface it gives rise to profuse sloughing, the ulcers formed producing an abundant and offensive purulent discharge, and proving very slow to heal. (Wright, *Edin. Med. and Surg. Journal*, vol. liii. p. 8.)

There are, of course, conditions by which the absorption of this, in common with all drugs, is essentially modified. For example, the state of the system in general, whether of stimulation or of depression, the amount of the dose, the degree of its dilution when administered or subsequently in the stomach, depending on the relative fullness of that viscus, the idiosyncrasy, age, or habits of the patient, and, finally, the relative health of the medium of absorption, are all modifying conditions so obvious, and of such general application, that they need no extended discussion.

*Passage through the System.*—Once in the blood, the efficient constituent principles of ergot are conveyed by that fluid to every part of the system, thus exercising their legitimate effects everywhere, and giving rise to characteristic phenomena of action. What becomes of the drug in the passage through the system, whether its elements are resolved chemically, and used up in the blood, or are eliminated as they were absorbed, are questions yet open for solution. The experiments of Wright appear to indicate the presence in the blood of the oil of ergot, which Bonjean deems the poisonous element, but concerning the ultimate fate of this and of the other principles we are not yet enlightened. Nor do we know that any of the ordinary emunctories are concerned in the act of elimination. No increase of the secretions appears to indicate

the process, as is so plainly demonstrated with other agents; and we do not find functional or organic changes in the glands other than those referable to the general action. It has, however, been observed that the perspiration acquires a perceptibly sour odor after the injection of ergot. (Wright.)

We are equally uncertain concerning the time occupied by the processes of absorption and elimination, all observations being approximative only. Thus in labor, according to Trousseau and Pidoux (*Thérapeutique*—art. Ergot), the duration of the action of the drug varies from half an hour to an hour and a half. Prescott, after an analysis of fifty-nine cases, fixed the average duration of the effects at "an hour and a little more." But these sensible effects on the gravid uterus, although more obvious than phenomena developed elsewhere, do not probably indicate the only influence, or its actual extent and duration, while the cumulative effect is sufficiently shown by the symptoms in chronic ergotism, as well as by those pertaining to the nervous centres in the ordinary exhibition of the drug.

*Effects on the System.*—Experiments in this direction are reported in great numbers, although the results attained are essentially the same. A single observation recorded by Parola (*Bib. de Méd. Pract.* p. 218) will suffice in illustration. "A single man, aged 24 years, tall, slender, lymphatic and always healthy, took one gramme and a half of powdered ergot; his pulse being at the time sixty-seven, and his respiration twenty. Two hours after, he felt general depression, shivering throughout the body, coldness of the surface with 'goose-flesh,' illness at the epigastrium, loss of appetite; pulse sixty, soft and feeble; countenance pale; pupil dilated. On the day following, he took another dose, with the same effects somewhat aggravated; and during the next forty-eight hours, a feeling of debility, with slow pulse, and diminished respiration, showed the lasting depressing effect of the drug." Gubler (op. cit. p. 113) enumerates the symptoms of acute ergotism as follows:—"Nausea and vomiting, pain in the abdomen, alvine dejections, dryness of the fauces, thirst, aversion to food, itching of the limbs, numbness, lassitude, heaviness of the head, vertigo, dilatation of the pupils, delirium, drowsiness, stupor, rarely acceleration of the pulse, almost always, on the contrary, diminution in the frequency and force, tendency to syncope, pallor and lividity of the face." Nor must we forget the specific action of ergot, that for which it was first employed, whether empirically

or regularly, and which has given it nearly all the distinction which it possesses—its effects on the gravid uterus.

Experiments on the physiological effects on animals give results no less striking and interesting than those above enumerated. The numerous observations of Wright gave symptoms almost constantly identical; dilated pupils, convulsions, rapid pulse, staggering, paraplegia, prostration, coldness of the surface, death. The prolonged exhibition of ergot produced analogous phenomena, differing only in degree of intensity.

[To be continued.]

#### A CASE OF HERPES ZOSTER OPHTHALMICUS, IN A PATIENT 80 YEARS OF AGE, CAUSING FATAL PROSTRATION; WITH REMARKS.

By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon  
Mass. Char. Eye and Ear Infirmary, Boston, &c. &c.

(Continued from page 292.)

I THINK, very naturally, medical gentlemen may be inclined to doubt the correctness of my diagnosis in this case, or perhaps even the existence of so curious and sometimes so formidable a disease. I shall, therefore, in support of my views, take the liberty of here quoting gentlemen whose opinion and observation will be unquestioned. Mr. Jonathan Hutchinson, in the Royal London Ophthalmic Hospital Reports, says, of herpes zoster affecting one or all the branches of the ophthalmic nerve: "This most interesting-disease has as yet received but little attention from writers on skin diseases, and, as far as I am aware, scarcely any from ophthalmic surgeons." "The disease is, I am persuaded, more frequent than is generally supposed. In proof of this I may mention that, during the last year, no fewer than three patients have consulted me in private on account of its effects. I have found most surgeons very incredulous as to this disease, and free in asserting that they had never seen it, and that it must be extremely rare. My conviction is that it is often misnamed. It is often considered to be erysipelas. Three patients who came to me with the unmistakable marks of herpes on one side of the forehead had been treated for a disease which had been said to be erysipelas, and several others in my series had also had a similar diagnosis given. Yet it is easy enough to distinguish the one from the other, if attention be once drawn to their differences. Herpes frontalis is always limited to one side—never transgresses the median line of the forehead and nose. It never affects the cheek, although there may

be some sympathetic œdema of the part (œdema of contiguity). There is less general swelling of the skin than in erysipelas, and in some cases very little.' The vesicles of herpes are smaller, more defined, more numerous, and altogether much more conspicuous and pronounced than are the bullæ of erysipelas. There is much more pain and much less constitutional disturbance in herpes than in erysipelas. The strictly unilateral character of the one, contrasted with the irregular location of the other, is, however, the most reliable feature for the purpose of ready diagnosis." "Herpes almost invariably leaves scars, often deep ones, and by the arrangement of these (unilateral) it is usually easy to recognize a patient who has suffered from the disease, even years after its occurrence." In proof of this latter we would refer to a photograph and wood-cut in the Ophthalmic Hospital Reports given by Mr. Bowman, who there says in regard to ophthalmic shingles: "Cases of this nature have attracted my attention during many past years." "I have frequently seen this disease mistakenly called 'erysipelas,' even by accomplished practitioners. From this it is distinguished by the pain preceding the symptom, by the mingled numbness, pain, and heightened sensibility remaining for a long period after the inflammatory outburst, and especially by its not overpassing the median line." To show that these views are supported by absolute observations, I will here introduce a tabulated statement [see next page] of twenty cases of this form of zoster, collected by Mr. Hutchinson, and thirteen cases reported by Mr. Bowman, all occurring within the last few years. They certainly would seem to show that the complaint is not so very infrequent, and would be oftener noticed were it always diagnosed.

About a month after I had reported my case and read this paper at the Newport meeting of the American Ophthalmological Society, 1868, the subject of herpes zoster ophthalmicus was introduced at the Heidelberg Ophthalmological Society by Dr. Steffan, of Frankfurt. The report is so interesting that I here introduce what was said, translated from the proceedings of the society published in Zehender's *Klin. Monatsbl. f. Augenheilkunde*. Dr. Steffan: Frankfurt.

"Allow me to call attention to the very interesting disease known as *herpes zoster frontalis, seu ophthalmicus*, which from ophthalmologists has been but lately properly noticed, by our English colleague Hutchinson. Since his remarks in the 5th

vol. of the Oph. Hosp. Reports and Bowman's in the 6th vol., I do not know of any notice of herpes zost. front. in the French and German ophthalmic journals; and therefore, as also in consequence of the rarity of the disease, I think the following in place here. I had for the first time a case under my care the past summer.

An operative, æt. 36, who had always been well, applied to me with an already fully developed cutaneous eruption, the history of which before and after his appearance only completely confirmed the correctness of Hutchinson's observations. (Dr. Steffan then exhibited to the Society a photograph of this patient, taken after the disease had run its course, together with the photograph of Bowman's case, from the Oph. Hosp. Reports, and proceeded with the following description of the disease.)

The patient suffers for several days, even up to the ninth, the most intense neuralgic pain in the brow and head. Then a cutaneous eruption appears, i. e. the skin swells and becomes red. In some cases, firm, resisting spots are perceptible in the subcutaneous cellular tissue; afterwards, fine vesicles appear on the surface of the skin, in groups or plaques. The separate groups of vesicles become confluent, the contents, consisting of mixed blood and pus, dry up to a thick scab, and when these fall off deep scars are left, which last the patient's life-time, and remain a perfect proof of the disease having existed. From the announcement of the cutaneous eruption to its end, i. e. the formation of scars, is about three weeks. Even after the scars have formed, the neuralgic pain may continue in the parts affected in the most aggravated form, whilst the cutaneous surface itself feels numb and parchment like. The locality of the affection is distinctly marked out, that is, it affects only the portion of skin supplied by the first or ophthalmic branch of the trigeminal nerve—the forehead, upper lid, and nose to its tip. As we know, the first branch of the trigeminal divides at the fissura orbitalis superior, or before this, into three nerves—lacrimalis, frontalis and naso-ciliaris. The lacrymalis goes to the lacrymal gland and the neighboring skin of the upper lid. The frontalis, dividing into supra-orbitalis and supra-trochlearis, goes to the brow. The naso-ciliaris, which in connection with this disease mostly interests us ophthalmologists, gives off a *radix longa* to the ciliary ganglion, and some *nervi ciliares longi*, and then divides into the *infra-trochlearis* and ethmoidalis. The *infra-trochlearis* passes

MR. HUTCHINSON'S TABULAR STATEMENT OF 20 CASES OF HERPES ZOSTER FRONTALIS, SEU OPHTHALMICUS.—*Oph. Hosp. Rep.*, Vol. v., Parts 3, 4.

No.	Name—Date—Reference.	Health, premonitory symptoms, &c.	Parts affected.	Nerve affected.	Remarks.
1	Geo. Morgan, Ophthalmic Hospital, Sept. 9, 1861.	Florid; nearly bald.	Left forehead, upper eyelid, iris, side of nose to tip.	Whole ophthalmic division of fifth.	The eye inflamed, and was practically lost.
2	Mrs. Kimpter, Metropolitan Free Hospital, Dec. 17, 1861.	Very pale and feeble.	Left frontal region and mid region of side of nose.	Frontal and both trochlear branches.	Eye not inflamed.
3	William Woolgar, March 29, 1862.	In usual health.	Right forehead and mid region of side of nose.	" "	Eye not inflamed. Portrait by New Sydenham Society.
4	Joseph Bond, July, 1859.	Subject to broucheitis.	Left forehead.	Frontal division only.	Eye not inflamed. Shingles, also, at same time, right side of the chest.
5	A. B. Clerk, Ophthalmic Hospital.	In good health; ten days' premonitory pain, severe.	Left forehead.	" "	Eye not inflamed.
6	Mrs. Barnes, Ophthalmic Hospital, June 9, 1853.	Pale and thin, but in good health; severe headache preceded, but not continued to the forehead.	Right forehead.	" "	Not very severe case. Eye not affected at date of notes. No subsequent record.
7	J. Thomas, Ophthalmic Hospital, April, 1865.	Healthy sailor.	Forehead and side of nose.	Frontal, trochlear and oculo-nasal branches.	Notes imperfect, and do not state more than that there was not much mucous discharge from the eye.
8	J. Anderson, Ophthalmic Hospital, June, 1866.	Tailor, in good health. Had pain in part, and slight rigor the day before eruption came out.	Left forehead, side of nose, iris, cornea, &c.	" "	Extensive opacities of cornea and posterior synechia. Pupil did not dilate to atropine.
9	Mrs. B., of Sutton, Bedfordshire.	A spare, but healthy lady.	Left forehead, side of nose, cornea, conjunctiva and iris.	" "	Patient came month after attack, on account of the damage to the eye.
10	Mrs. M. Hertford.	A lady in rather feeble health, and with suspected renal disease.	Forehead, conjunctiva, side of nose, cornea and iris.	" "	Patient came, as last case, on account of eye. Cornea hazy, pupil fixed, skin numb.
11	Mr. — Hackney.	A very healthy man.	Left forehead, side of nose, conjunctiva and cornea.	" "	Sent me on account of cataracts.
12	Dr. Markham.	46? Good health.	Left forehead and side of scalp.	Frontal; eye did not inflame.	This accomplished physician was himself the patient.
13	A girl, London Hospital, Dr. Parker's case.	. . . . .	Left forehead, side of nose and iris.	Frontal, trochlear and oculo-nasal branches.	Shown me by Dr. Woodman.
14	Danielsen and Boeck's, Atlas of Skin Diseases.	65? Good health.	Right forehead and side of scalp.	Frontal.	No inflammation of the eye.
15	Hayes's case, Man.	47? . . . . .	Left forehead.	Frontal division.	Eye not mentioned.
16	Dr. Broadbent, patient an officer.	23 Spare, but in good health.	Right forehead and side of nose, but not to tip.	Frontal and both trochlear branches.	The eye inflamed, and the cornea was slightly opaque.
17	A girl.	12 . . . . .	Forehead.	Frontal.	Eye not inflamed.
18	Mrs. —, Ophthalmic Hospital.	60 Good health.	Right forehead and side of nose.	Frontal, trochlear and oculo-nasal branches.	The side of the nose chiefly affected. Complete blindness resulted.
19	Mr. Parker, Ophthalmic Hospital.	14 Strumous looking.	Left forehead, scalp and upper lid.	Frontal.	Mild course. No inflammation of the eye.
20	A. B. case of Mrs. Ransom, Bowd.	43 Good health.	Left forehead.	Frontal.	No vesicles on nose, and no inflammation of eye.
	A. B.	80 (My own case. B. J. J.). Good health.	Left forehead, scalp, lid, side of nose, eye.	All branches of ophthalmic.	Disease ran its course in 36 days; patient died from exhaustion on the 44th day.

No.	Name—Reference.	Age	Health, premonitory symptoms, &c.	Parts affected.	Nerve affected.	Remarks.—Complications.
1	Miss B., Oct., 1855.	40	. . . . .	Right forehead.	Frontal.	Ophthalmia and cornelitis in right eye, leaving nebula.
2	Miss H., 1860.	57	Had had inflammation of o. d.	Right forehead.	Frontal.	Cornelitis and iritis in right eye, leaving dense nebula.
3	Mr. W., 1858.	36	. . . . .	Left forehead.	Frontal.	Internal strabismus left eye; diplopia.
4	Mr. L., July, 1865.	70	Has had diplopia.	Left forehead and scalp.	Frontal.	Conjunctivitis. Supra-orbital nerve divided; no permanent benefit.
5	Mr. S., Jan., 1864.	41	. . . . .	Left cheek and temporal region.	Submaxillary and frontal.	Atrophy of optic nerve, left eye.
6	Sam H., Nov., 1864.	55	. . . . .	Left side of head, cheek, nose and lids.	Frontal and nasal.	Cornelitis leaving nebula, left eye. Supra-orbital and infra-trochlear divided; considerable relief.
7	Miss S., 1861.	60	. . . . .	Forehead, right.	Frontal.	Nebulous cornea, right eye.
8	Mrs. S., Sept., 1866.	52	. . . . .	Right forehead and infra-orbital region.	Supra-orbital and infra-trochlear.	Ulcers of cornea, iritis, right eye.
9	Ed. H., Nov., 1866.	70	. . . . .	Right forehead, temple and upper lid.	Frontal.	Thickening of lid, globe not affected.
10	Jos. Haynes, 1867.	4	. . . . .	Left forehead.	Frontal.	No affection of the eye.
11	Thos. Redburn, 1865.	9	. . . . .	Right forehead and upper part of nose.	Frontal and nasal.	Leucoma, right cornea (due to herpes?).
12	A. Turnbull, 1867.	12	. . . . .	Forehead (right?).	Frontal.	No vesicles on nose; eye not inflamed.
13	Anne Robins, 1867.	44	. . . . .	Right forehead.	Frontal.	" " " " " "

over the ligamentum palpebrale internum to the orbit, and in connection here with the supra-trochlearis spreads upon the upper lid and the skin of the root of the nose. The ethmoidalis passes through the ethmoid opening transversely inwards to the inside of the skull, and then forwards on the lamina cribosa of the ethmoid bone, through the anterior foramen cribosum near the crista galli into the nostril, there dividing into three twigs, one of which comes out on to the skin of the top of the nose from between the under edge of the nasal bone and the cartilage. The cutaneous eruption in herpes zoster ophthalmicus affects in but a very small number of cases the whole cutaneous district of the first trigeminal branch. It always affects the distribution of the supra-orbitalis and mostly that of the supra-trochlearis; the former may be affected without the latter, the latter never, however, without the former. The eye does not suffer when the frontal distribution of the first trigeminal branch is alone affected. It is only in danger of being involved when, besides the frontal branch, the naso-ciliaris is also affected—i. e. the cutaneous eruption appears on the side and tip of the nose. In my case, the cutaneous eruption was on the forehead, upper lid and side of the nose down to the tip, and yet the eye escaped—a proof that ocular trouble is not necessarily associated with the affection of the skin of the nose. In the 24 cases grouped by Hutchinson (15 men and 9 women), the side of the nose was only affected 9 times; and in these 9 cases the cornea and iris were affected but 6 times. The participation of the eye is, according to Hutchinson, expressed in two ways—either as ulcer of the cornea or as iritis, with all the consequences of these diseases, even to loss of the visual organ.

In commencing, I spoke of the rarity of this complaint as the cause of its being so little known. There is, however, another reason for this, namely, its being mistaken for erysipelas of the face, as occurred in my case by the physician under whose care the patient first came. The two diseases are, however, very different. Herpes zoster frontalis never passes the median line of the face, and is strictly confined to the distribution of the first branch of the trigeminal in the skin of the brow, upper lid and nose, leaving the cheek and lower lid free. The products of herpes zoster frontalis are numerous fine vesicles grouped in masses (*plaques*), which afterwards run together, but never form single large blebs as in erysipelas. Herpes zoster frontalis is accompanied with very great local pain,

preceding the cutaneous eruption several days; moreover, we do not have the severe febrile action, indicating participation of the whole system in the disease, as is generally the case in erysipelas. Herpes zoster frontalis leaves scars on the skin, and often deep ones, which, from their being located over the distribution of the affected nerves, ever afterwards mark the occurrence of the disease, whilst, on the other hand, no traces are left by erysipelas. Herpes zoster frontalis attacks the patient but once, and does not threaten his life, the reverse of erysipelas of the face. The eye is in great danger in herpes zoster frontalis; not so, however, in erysipelas.

Finally, if we seek the essence of herpes zoster frontalis, there can be no doubt that the immediate cause of the disease must be looked for in the peripheral distribution of the cutaneous nerve from the first trigeminal branch. This follows from the fact that extreme pain in this nervous district precedes a long time every symptom on the skin. There is nothing by which we might refer the disease to the central nervous system, or suppose it to arise by reflex nervous action. Whether the peripheral distribution of the sensitive cutaneous nerves, or the vaso-motor (trophic?) running in the same district, are the originators of the disease, must at present still remain a question.

Herpes zoster frontalis is distinguished from all other forms of zoster by two characteristics. First, that the cutaneous eruption develops to deep pustules, leaving scars after the process has run its course; and second, that before the appearance of the eruption and after it has dried up, there are such severe neuralgic pains as to render the disease a severely painful one. For ophthalmology, however, herpes zoster frontalis has a special meaning, from the participation of the naso-ciliary nerve and the concomitant ophthalmic affection. Our English colleague Hutchinson deserves the credit of having brought this last point to especial notice, and thereby connected herpes zoster frontalis seu ophthalmicus with ophthalmology.

#### DISCUSSION.

Dr. Kreitmair, of Nuremberg.—I can add nothing to the description of herpes zoster which we have heard, it is complete and accurate, and would only say that I had two cases occurring within a short time of each other, one a strong, well-built workman, with whom I saw the zoster commence. He applied to me with a swelling, complaining of such fearful pain that, from

a man of his condition, was something new for me to hear. On the second and third days the pustules appeared in the described form of herpes zoster. The second case was that of a young girl about 15 years of age. These two cases occurred close together, at a time when neuralgic affections were almost epidemic in Nuremberg. I often had to control the neuralgia with quinine; the zoster was treated in the same way, and I may assert that it seemed to be limited thereby. In one case very visible deep scars were left.

Dr. Horner, of Zurich.—I may be allowed to add that I saw a case of zoster, in iritis, where the disease was not present on the side of the nose, so that the participation of the naso-ciliary branch was by no means so strikingly exhibited. I was called to the patient on account of the iritis. The appearances of herpes zoster were, however, perfectly marked, namely, the grouping of the vesicles and the secondary formation of bullæ.

Dr. Kreitmair, of Nuremberg.—I may add that in my two cases the globe remained intact.

Dr. Pagenstecher, of Wiesbaden.—If any one is interested in studying the scars they may see them on me, as I went through with the disease. It was in my last term as student in Würzburg, and I was not then, of course, so interested in the disease. I, however, remember the course of it perfectly well. It was just as Dr. Steffan has described it, only the prodromous stage was not so long. Some two days previously, I had a numb feeling over the distribution of the ophthalmic branch, and immediately before the eruption a very severe itching, with considerable swelling of the lymphatic glands on the whole right side down to the neck, so much so that leeches were ordered by the attending physician, Dr. Markus, since dead. Finally, the appearance of the eruption left no doubt as to its being herpes zoster. My eye was severely affected, I had keratitis but no iritis, and the whole course was quite rapid, so that by the eighth day the crusts fell off, leaving scars now nearly obliterated. I had no subsequent neuralgic troubles.

Dr. Laubsberg, of Görlitz.—I desire only to call attention to the admirable action of hypodermic injection of morphine, which certainly exceeds that of quinine and all other remedies. It is not simply momentary or symptomatic, but can mitigate, at least, the pain and intensity of the attacks for some days.

I have not hunted through the journals

for reports of individual cases, as I thought the above, occurring within the last few years, were sufficient at least to identify the disease and prove the correctness of my diagnosis. However, to show that cases are occurring repeatedly, and are properly diagnosed and reported, I introduce the two following. The first is by Dr. Johnen, in the September appendix to the *Vienna Medical Newspaper*.

A woman, æt. 38, healthy, had for four days pain about the left eye, and in the eye itself, perfectly simulating neuralgia. So great photophobia that the patient kept the eye covered with a cloth. The upper lid was swollen; the conjunctiva of the lid and globe reddened and lax; the pupil contracted and the iris discolored. Iritis was the only diagnosis that could be made, and therefore atropine collyrium was ordered, with proper care of the eye, and general treatment. On the third day there were groups of herpes on the forehead to the median line, on the temple to the edge of the hair; a long group on the nose, reaching from the inner canthus to where the nasal cartilage commences. The upper lid was so œdematous that the globe could hardly be exposed; the conjunctivæ were reddened and swollen; the whole cornea steamy, a phlyctenula directly in the centre; the eye still very sensitive to light, although the pupil is somewhat dilated. The patient has very little fever, although the constant pain has destroyed all appetite, and she is scarcely able to attend to her housework. The herpetic vesicles ran through their ordinary course. The corneal vesicles flattened and changed into an open ulcer, which healed but slowly, and left an opacity. The iritis disappeared without deposit. Besides atropine, treatment consisted of subcutaneous injections of morphine. Whilst the former dilated the pupil, the latter seemed to have no effect on the pain. A glance at the anatomy of the trigeminus shows that the zoster spread exactly in the course of the ophthalmic branch. Whether the cartilaginous portion of the nose, in the skin of which a branch of the ethmoid is distributed, escaped accidentally, like other clear portions of the skin between the vesicles, or from anatomical relations, the observer would not decide. He regarded the affection of the iris and cornea as part of the herpetic process, and not as caused by the stasis in the conjunctival vessels. The iritis was the first visible local expression of the disease, and already present before the inflammatory action of the other portions of the globe reached its height. The

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want of action of atropine, mentioned by Hutchinson, does not appear to be due to any specific action of the zoster, but dependent on the extreme inflammatory vascular injection as so often observed in iritis from whatever cause. In this case atropine had its usual effect. The observer regards the term herpes zoster *ophthalmicus* as more appropriate for this affection than herpes zoster *frontalis*.

Dr. Ringer, *Lancet*, Sept. 19, 1869, University College Hospital, reports the second:

The patient a lad of 17. The eruption was confined to the integument supplied by the ophthalmic and superior maxillary branches of the fifth, the part supplied by the inferior maxillary being unaffected. The eruption was on the left side, strictly limited by the median line, and affected the anterior part of the hairy scalp, the forehead, and upper part of the face and side of the nose, being bounded below by the mouth and a line drawn from the angle of the mouth to the malar bone, an inch and a half in front of the ear. The eyelids were œdematous and the conjunctivæ inflamed. Thus it corresponded closely to the cutaneous distribution of the supra-trochlear and supra-orbital and nasal of the ophthalmic, and of the orbital (temporal and malar) and infra-orbital branches of the superior maxillary.

I shall not here attempt to solve the nosological riddle presented to us by herpes zoster in general, but would refer to the monographs, &c., in the list at the end of this article. In these, others still are referred to, which will carry any one desirous of pursuing it, through the whole literature of this interesting subject. Special mention should be made of Mr. Bowater J. Vernon's report of five cases of herpes zoster ophthalmicus in the *St. Bartholomew's Hospital Report*, vol. iv. 1868.

Prof. Baresprung published in the *Annals of the Charity Hospital at Berlin* a series of articles on zoster, with reports of cases in 1861-63. His suggestions have lately been quoted and acted upon as if they were settled opinions, the very errors in diagnosis which he warned against fallen into, and his carefully observed facts treated with such nonchalance, that I think it but justice to him to translate the following passages from the original articles.\* Under the etiology of zoster Prof. Baresprung says:—

"Physiological facts have long ago proved beyond doubt, that the cerebro-spinal nerves

\* I refer to the article on zoster and the reported cases in Dr. H. F. Damon's little work on *Neuroses of the Skin*.

carry, besides the sensitive and motor, a third set of fibres of a different character, coming from the sympathetic system, and these alone must be thought of as the peculiar medium of trophic action. At all points where there are ganglia, such fibres enter the nervous cords, since they spring from the ganglion cells themselves. It is, however, the peculiar province of every large ganglion to supply certain organs with trophic fibres. Where, however, do those arise which go to the surface of the body, whose morbid irritation calls forth the curious phenomena of the rupture of zoster? We have already shown where they must arise; everything points to the posterior roots of the spinal nerves, each of which is furnished with a ganglion. The spinal ganglia give us the key to the solution of all the appearances.

According to Kölliker's observations, the sensitive nerve-fibres of the posterior roots pass through the spinal ganglia without forming connection with them; whilst the ganglionic fibres coming from the ganglia themselves never spread towards the spinal cord, but all take the peripheric course of the sensitive fibres. Close to the ganglion the motor fibres of the anterior root join, and thus form the short stem of the spinal nerves. This soon divides again into an anterior and posterior branch, each of which takes sensitive, motor and ganglionic fibres, and passes to the surface of the body.

I know very well that the difficulty of ascertaining this histologically throws many doubts upon its admissibility, and that some physiological experiments seem to speak against it, but the clinical facts appear to me to here offer absolute proofs. If this is so, and in reality the trophic action in the skin is brought about through the nerve-fibres coming from the spinal ganglia, then all cases of fully developed zoster and all cases of zoster running their course without other nervous disturbance, are to be referred to irritation of these ganglia themselves, as from them alone the trophic elements spring. In the course of the nerves these latter are so mixed with the sensitive and motor, that it is not conceivable how any cause can act to excite them alone.

The neuralgic pain attending zoster is explained by the transmission of the irritation from the ganglion to the special posterior root, and thus the latter may spread its excited condition by means of the spinal cord to neighboring or symmetrical nervous districts, whilst the trophic irritation remains unilateral, because the ganglion

sends no fibres to or receives any from the spinal cord.

Besides the district, however, of the spinal nerves, we have seen zoster appearing in the course of the trigeminal, a cerebral nerve completely analogous to the spinal nerves in that its sensitive root is also provided with a ganglion close to its origin. The Gasserian ganglion here acts the part of the spinal ganglion, and on it seems to depend the trophic functions in the skin of the face."

Only two *post-mortem* examinations of patients with zoster had been reported, which Baresprung gives. One, by Rayer, afforded no result; the other, by Danielssen, showed *neuritis intercostalis*. The spinal ganglia, however, were not examined. Baresprung afterwards had opportunity of making one, the result of which is so interesting as to give it place here.

In September, a child one year old was taken into the hospital on account of scrofula, the glands of the neck and over the sternum greatly swollen, a bronchial catarrh and considerable emaciation. In the following May, without apparent cause, zoster appeared on the right side, in the form of a band more than two inches wide between the 6th and 9th ribs, behind spreading a line or two over the median line, from the 6th to the 8th vertebrae, and terminating in front under the xiphoid process. This zona ran through its course, and the tuberculosis increasing and attacking the lungs, the child died, emaciated, on the 21st day. *Post-mortem* examination showed the signs of tubercle in the lungs and lymphatic glands. Upon very careful examination, the spinal cord was found unaltered. The anterior and posterior roots, from their origin in the cord to their entrance in the intervertebral openings, quite white and evenly firm. On opening the intervertebral canal and exposing the 5th to 9th intercostal nerve, great thickening and reddening of the 6th, 7th and 8th was noticed, especially the 7th, apparently due to a swelling of the neurilemma permeated with tortuous vessels. The 7th intercostal nerve was half as thick again as the 5th or 9th, these latter remaining quite white and unaffected; this enlargement reached about an inch on the anterior and not so plainly on the posterior branch; further on, the intercostal branch appeared quite normal and white. The 6th and 8th exhibited this redness and swelling, but not so markedly or for so long a distance as the 7th. The spinal ganglia belonging to these three nerves were more



firmly adherent on the wall of the intervertebral canal; the connective tissue here also more red and thickened, so that the ganglia seemed to have increased in volume. These differences were still plainer after the nerves, with the ganglia, had been dissected out and put in water, the coating of connective tissue not floating readily, as it was thickened; letting the light pass through showed the ganglia and the nerves coming from them of a dark-rosey red, this color being in the neurilemma and not in their substance. The microscope showed also undoubted remains of inflammation, principally, it is true, in the neurilemma; a fine granular mass was found in the external covering of the ganglia, as also between the minute lobes, partly irregularly strewn, partly massed in roundish groups and lumps, the brownish color of which would indicate escaped and broken-down blood-corpuscles; the connective tissue in which they lay was apparently richer in granules, less elastic and looser than the rest. These changes reached beyond the ganglion to the point of crossing, and to the two branches as far as they appeared externally reddened, gradually lost themselves, so as not to be seen in the distant part of the nerve. There was no peculiar alteration of the nerve-substance to be seen, either in the ganglion or in the nervous bundles, and yet here and there where the granular masses were most grouped the fibres were altered in form, varicose, coarsely granular, and even their continuity interrupted. Barendsprung gives plates of the microscopic drawing of these appearances, and he adds:—"The *post-mortem* has shown what was to have been expected, that there is not in zoster a destructive process, but only a slight and readily reparative one. It has, moreover, shown very clearly that the disease originates in the spinal ganglia. In this connection, it seems to me to be of special interest that the inflammation extended peripherically outwards from the ganglion, and not through the posterior root to the spinal cord. If, as the microscope would seem to show, there is only inflammation of the neurilemma, then the inflammation would have spread in both directions, whilst its simply peripheric extension much rather points to conduction through the ganglionic fibres arising from the ganglia."

"To recapitulate: zoster depends on a disease of the ganglionic system, and in special cases on irritation of some of the spinal ganglia or the Gasserian; yet the peripheric irritation of a nerve having gangli-

onic fibres in it may be followed by a limited eruption of zoster vesicles. By this it is not at all meant that further *post-mortem* examinations must necessarily show always coarse structural alterations in the ganglia. The pathology of the diseases of the brain and spinal cord prove how often any anatomical grounds for many disturbed nervous actions escape the best armed eyes."

Now, aside from any theory drawn from it, this observation of Barendsprung is certainly very important and interesting, sufficiently so to be quoted in full by Proust in an article on the "*Troubles of Nutrition consequent on Affections of the Nerves*," published in the *Archives Générales* for February, 1869. In connection with it, Proust quotes another case of Charcot's, which he says gives it a new interest. A woman, aged 78, entered Salpêtrière Jan. 16, 1865, with cancer of the right breast, not ulcerating. About the 15th of December, an eruption of zona appeared over all the right half of the neck, behind, on the side, and in front, not passing the median line either before or behind. The perfectly characteristic groups of herpetic vesicles were pretty uniformly distributed and numerous on the nape and above the clavicle; some were scattered over the top of the shoulder, the lowest part of the cheek and the mastoid region, and finally on the infraclavicular region to the upper edge of the pectoralis major. It is seen that the eruption occupied all the portion of the skin supplied by the branches of the cervical plexus of the right side. The autopsy showed nothing in the cord. The intervertebral canals were open, which was verified; the anterior and posterior roots, both right and left, had preserved their volume and color; on the right side, the spinal ganglia, as well as the nervous trunks formed by the union of the spinal roots, presented a slight tumefaction and vascular injection, as shown by the deep red color. Outside of the openings, the red color of the nerves gradually faded, and was no longer visible on the nervous fibres coming from the cervical plexus. Microscopic examination of the ganglia and the red and swollen nervous trunks showed the following:—In the ganglia the nerve-cells presented no appreciable alteration; they contained a large quantity of dark pigmented granulations, but these existed nearly in the same number and of the same character in the ganglionic corpuscles of the left side. The vascular plexus of the ganglia was vividly injected, and the addition of acetic acid brought out nuclei more nume-

rons than normal in the laminous texture. In the nerve-trunks there was marked ingestion of capillary vessels of the neurilemma, and acetic acid brought out very abundant nuclei. The nerve-tubes retained their physiological character and condition. (Vide Charcot et Cotard, *Mémoires de la Société de Biologie*, 1866, p. 41.)

(To be continued.)

## Bibliographical Notices.

*A Treatise on the Diseases of the Eye.* By J. SOELBERG WELLS. Philadelphia. 8vo. Pp. 739.

THE literature of ophthalmic science seems in no way likely to suffer from want of earnest and frequent contributors. No other branch of medicine has made such great progress during the past twenty years, and the rapid increase of its literature is the natural consequence of its remarkable advance.

For many years the original work of Mackenzie was the standard authority, and although we have on most points left it far in the rear, yet in some respects it stands on the same ground as its more modern brethren. Lately it has been thoroughly revised and brought up to the modern mark in French by MM. Warlomont and Testelin.

Recently several excellent treatises on the eye have appeared, among which may be mentioned in particular those of Stellwag von Carion and Wecker. Stellwag von Carion's (Am. translation from 3d German ed.) is a very valuable work, embracing the whole subject, but the style of the translation is frequently faulty and heavy, and the author's meaning at times difficult to appreciate, especially on the subjects of accommodation and refraction. It will always be useful, however, as a work of reference to the specialist, but can hardly find a place as a text-book for students or avail much to the general practitioner. The work of Wecker, which has now passed through two editions, is undoubtedly the clearest and most complete that has yet appeared, but its size, cost, and the fact that it is not in our own tongue, will prevent many from obtaining it. Besides these there are the works of Bader, Powers, Macnamara and others, as well as many monographs and a large amount of journal literature on special departments of the subject.

With such a formidable array of authors

already in the field, it would at first sight seem that there was no occasion for another treatise on the diseases of the eye. This, however, is not the case. Mr. Wells's work will be found not only highly useful to the specialist, but will fill a want long felt by the general practitioner and student, in offering them a comprehensive and clear description of the subjects of which it treats.

Mr. Wells has appeared already as a writer of numerous articles connected with his specialty, and a small treatise on "Impaired Vision," in which he displayed a happy faculty of simplifying and condensing the difficult subjects of accommodation and refraction. The same clearness and conciseness of expression characterize the present work almost throughout the volume.

The arrangement of the *matériel*, which differs from that of any other author, is not objectionable, though we prefer that of Wecker as more natural anatomically. The minute anatomy and the pathology of the subject are not given as distinct parts of the work, but only so much as is necessarily involved in the description of each disease, and then in rather limited amount.

The book opens, as is usual, with remarks about bandaging, manipulation, &c. The chapter on conjunctival diseases is well written, the descriptions of the various affections graphic, and the treatment up to the best modern standard. The author thinks "that the term 'simple conjunctivitis' should be altogether discarded. It is in fact only the mildest form of catarrhal ophthalmia, and hence there is no reason to make it a distinct form of disease." Of purulent ophthalmia he says, it may "be regarded as a more severe form of catarrhal ophthalmia, in which all the symptoms of this affection are intensified in degree." Indeed, it has been proved by experimental observation, that the different forms of conjunctivitis are allied in type, if varied in the degree of their severity, and that the secretion of any form of the disease is capable within certain limits of producing in sound eyes almost any of the other forms. The use of the acetate of lead, either as a wash, as advised by the author, or in the heroic manner adopted in Belgium, is to be deprecated, since with the slightest abrasion of the cornea an opaque deposit, difficult and at times dangerous to remove, is the result.

The treatment of diseases of the cornea is excellently given, though we must differ from Mr. Wells in the propriety of puncturing the bottom of an ulcer threatening

to perforate. The very objects for which paracentesis corneæ is done, viz., to prevent perforation, synchia and harm to the capsule of the lens are seriously endangered by this procedure. The old method of paracentesis at the periphery of the cornea certainly appears far safer, until better reasons are offered for the substitution of another. With regard to diffuse or interstitial corneitis he very justly says, "I cannot at all agree with the view that diffuse corneitis is always due to inherited syphilis, for although I have often seen it associated with the latter, yet in many cases not the slightest trace of a syphilitic taint could be ascertained, and there was a marked and complete absence of the peculiar syphilitic features and the notched teeth."

In the treatment of non-specific iritis, where there is considerable tendency to the exudation of pus or lymph at the edge of the pupil, mercurial inunction is strongly advocated—a practice which has not obtained here of late. The operation of iridodesis (Critchett's), but rarely done in this country, is urged, and with apparently good reason, for artificial pupil in lamellar cataract, conical cornea and leucoma corneæ. The subject of cataract and the operations therefor are well and thoroughly discussed, the preference among the latter being given to Von Graefe's modified linear extraction—and, judging from the results of this operation, now practised for some three years, it has surpassed every other form of extraction.

The portions of the book devoted to the retina, optic nerve, amblyopia and amaurosis are written with admirable clearness, and give the latest researches of English and continental authorities on these subjects. The chapter on glaucoma is a succinct and thorough exposition of the history, diagnosis and treatment of this much-written-about disease, and is decidedly the best resumé of the subject that we have in our language.

In the more purely scientific parts of the work Mr. Wells is as successful as in the descriptive portions, and the use and theory of the ophthalmoscope and the anomalies of refraction and accommodation are treated in a manner which will render them plain to any reader acquainted with the science of optics, even in a slight degree.

The remainder of the book is taken up by the consideration of the affections of the extrinsic muscles of the eye, lachrymal apparatus, orbit and eyelids, and is equally worthy of careful reading with the previous

portions, especially the chapter on the first of the subjects just mentioned.

As a whole, the book is remarkably well written, in a distinct and agreeable style, though we are surprised to find an English author coining such words as "diagnose" and "microscopizing." It is beautifully printed on good firm paper, and has a number of woodcuts and diagrams. The plates are chromolithographs copied from Liebreich's Atlas, and are good reproductions of illustrations of the morbid appearances of the eye, which have not yet been surpassed, and indeed, hardly equalled.

The dedication is to Von Graefe, and from the frequent occurrence of that distinguished oculist's name, as well as other German authorities, throughout the volume, it must be regarded as rather a German than an English work—in all save the language. But this is unavoidable, for the Germans have been the originators of almost all the great modern advances in the therapeutics and surgery of the eye. Still, if the author cannot lay claim to much originality, he is at least entitled to great praise for having performed his work with excellent judgment, in a manner at once conscientious, thorough and agreeable.

R. W.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, JUNE 3, 1869.

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DR. D. F. LINCOLN discontinues his connection with the JOURNAL, as it is difficult for him, with his other avocations, to give his attendance at the office. We are still, however, to have the benefit of his German scholarship in the supply of translated extracts from German periodicals. Those extracts will be designated by his initials, as heretofore.

Dr. II. H. A. BEACH has, for the present, kindly consented to discharge certain duties on behalf of the Editor. It is somewhat uncertain whether Dr. Beach will be able to continue his valuable aid to us after the lectures commence at the Medical College, where he is engaged as Assistant Demonstrator.

MR. EDITOR,—By request of Prof. Freer, who is now on his way to Europe, I send

you, by mail, the *Chicago Medical Journal*, containing an article on the "Discovery of a new Anatomical Feature in Human Blood Corpuscles"; also, by express, the electrotype plates of the diagrams illustrating the same, hoping that you may deem the discovery there set forth of sufficient importance to re-print the article in your valuable JOURNAL.

This article will, in due time, be followed by others, which will be promptly forwarded to you if you so elect. \* \* \* \*

Yours truly,

F. L. WADSWORTH, M.D.,

For Prof. J. W. FREER, *Chicago, Ill.*

We would express our profound appreciation of the favor done us by Prof. Freer, in enabling us to use his valuable contribution to histological investigation.

In the *Chicago Medical Journal* of May 15th, 1868, Vol. XXV., No. 10, in a brief, hastily written article, I announced that I had, as I believed, discovered that human blood corpuscles "are not, as heretofore supposed, simply bi-concave discs; but, on the contrary, there may be seen (by the use of Wale's illuminator), a nipple-like eminence in the centre of the concavity of each well-formed disc. This papillary eminence is about one ten thousandth ( $\frac{1}{10000}$ ) of an inch in diameter at its base. That it is a true anatomical form, and not a change incidental to desiccation, &c., is shown by its appearance at the instant of withdrawal of any given specimen, while the corpuscles are still plump and smooth in all other respects."

Continued investigation on this important subject has served only to confirm the announcement then made; and having had the opportunity of exhibiting corpuscles as herein described, to several eminent men of acknowledged scientific ability, and having received their opinion in corroboration of my own, I propose to set forth in this paper the views heretofore entertained upon this subject, and in contradistinction present my own more fully, illustrated by accompanying diagrams, which were drawn by an artist who had never before seen blood corpuscles, and, consequently, to be taken as unprejudiced testimony.

Among physiologists and microscopic anatomists there has been but one generally expressed opinion as set forth in standard works, illustrated and otherwise; *to wit*, that the human blood corpuscle is non-nucleated.

It may appear incautious, and even rash, to array one's self against evidence so

weighty, but my convictions have ripened under careful and persistent investigation, and I deem the announcement timely and worthy of earnest attention.

It may be superfluous to quote the opinions of authors with whom nearly all are familiar, but for a concise presentation of the subject I deem it advisable.

Prof. F. here refers to Todd and Bowman, Wharton Jones, Mueller, and Kölliker as holding the opinion that the red corpuscles of human blood are not provided with nuclei; and then quotes Longuet as saying:—

"With man and other mammiferous adults the blood globules appeared to be deprived of nuclei. There is not even an exception in the family camelidæ, which, by the form of their globules, approach to those in which the presence of nuclei is not doubtful. That which has been taken for a nucleus is but the thin, central part of the disc. This remark, already made by Hodgkin and Lister, has been confirmed by Henle, Donné, Wharton Jones, &c., notwithstanding various micrographers admit that sometimes among the ordinary globules without nuclei one meets with those that appear nucleated. Such, at least, is the result of the observations made by Wharton Jones, Schultz, Nasse and Busk, with man and other mammifera."

As all investigators are so nearly in harmony on the subject of the anatomy of these organic forms, the methods of observation having been uniformly the same, it is deemed unnecessary to make further quotations.

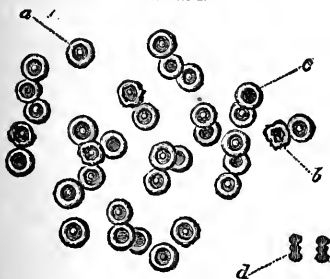
In presenting my own views in contradistinction to the foregoing, I wish to call especial attention to my method of investigation. Heretofore all examinations of blood corpuscles have been made by transmitted light, from which we might anticipate, *a priori*, that, with instruments of the same degree of perfection, similar results would be obtained. On the contrary, all of the research upon which my present convictions are based has been prosecuted by the use of reflected light, the object resting upon a polished jet slide.\*

The accompanying diagrams set forth faithfully the appearance made manifest by this method when properly pursued.

\* Those who wish to repeat these observations, by means of Wale's Illuminator, will find it indispensable that the object-glass be arranged for uncovered objects, and the discs spread thinly over the surface of the slide. Corpuscles found in defibrinated blood are the best for observation. Those found in rouleaux do not show the nuclei satisfactorily.

DIAGRAM I.—*a*, represents the perfect, human blood corpuscle. It will be seen that the centre presents a slight elevation, surrounded by an annular depression, while the circumference of the disc is, comparatively, thick, smooth and rounded.

DIAGRAM I.



*b*, represents a disc with serrated and shrivelled margin, with a perfect central elevation remaining.

*c*, a corpuscle without the central elevation.

*d*, is a hypothetical diagram of a disc placed upon its edge.

DIAGRAM II.

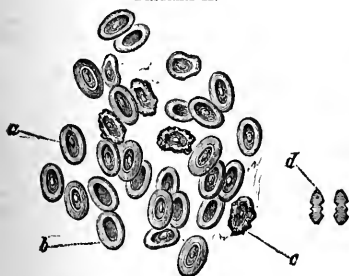


DIAGRAM II.—*a*, represents the perfectly formed, oval and characteristic disc, or globule of the frog. In the central portion may be seen an oval depression, in the centre of which can be observed the elevation representing the nucleus. The margin is shown to be rounded, smooth and thickened.

*b*, is like the former in every respect except the central papilla is absent.

*c*, a shrivelled corpuscle.

*d*, a corpuscle, as it would appear set upon its edge.

It will be seen from the foregoing explanation that these bodies do not all possess a nucleus, or central elevation. In fact, there are in both the human blood and in

that of the frog a large proportion, perfect in every other respect, that do not possess this peculiarity. Whether this fact is due to an absence of this feature on one of the surfaces of the corpuscles or to its non-existence in a certain percentage of cases, I am undetermined.

I have, as yet, examined but few pathological specimens. In one instance, however, in a case of advanced typhoid fever, the corpuscles, without exception, were found serrated, shrivelled and distorted in the most remarkable manner, with the exception of the nucleated centre. This seemed to maintain its integrity.

The reader, by reference to the diagrams, will observe that the corpuscles, both of the human and reptilian blood, are analogous in their general features, as, witness the elevated nuclei in the centres, the surrounding depression and the elevated margins, together with the entire absence of nuclei in nearly equal proportions of each. It will also be observed that certain numbers are imperfect in outline, as if affected by disintegration; and this is true of a similar proportion of every specimen that I have ever examined. This apparent analogy of form and feature between mammalian and reptilian corpuscles only supports what is generally acknowledged should obtain with these bodies in order to bring them in harmony with the known homology of other tissues, from whatever species of animal obtained. I believe that it is never denied that nerve, muscular, bony and other tissues, when compared with their kind, are essentially alike in their anatomical constitution. Why should blood tissue form an exception to this general rule? Do not the corpuscles perform the very same function, whether floating in the blood of a reptile or in the vessels of man?

With one exception I have not, as yet, extended my observations to the condition of blood discs in the various parts of the body. In the spleen pulp I found them mainly imperfect in form, being generally serrated, shrivelled, and seldom nucleated. Hæmatine, in granulated masses, was seen interspersed among the corpuscles. White corpuscles, in great numbers, were arranged around the margin of the specimen.

The Illuminator does not reveal anything unusual concerning the white corpuscles; they merely appear as non-nucleated, globular bodies. It is remarkable, however, that they never associate themselves with the red discs, there seeming to be a perfect antagonism of position.

THE announcement of the death of Dr. Calvin G. Page will carry surprise and grief to a large circle of acquaintances and friends. His fellow citizens in general, also, among whom he was widely known as a man of uncommon intelligence, energy and public spirit, will receive the sad tidings with deep regret. Dr. Page was a man of great worth, and warmly beloved by those who knew him, both in his profession and out of it. He was the writer of the last report of the School Committee—a document marked by excellent qualities of judgment, courage and taste. He served honorably through three years of the war, and his early death is to be traced directly to a disease contracted from his exposures in that arduous work. He is one more victim added to the vast multitude of our noblest and best sacrificed in that dread struggle for the salvation of the country. His spirit has ascended to heaven in the very hour when flowers were strewn and bells tolling in memory of the great army of his departed comrades. His memory will long be green in many a loving heart.

To the above appropriate words, which we take from the Boston *Transcript*, we must be permitted to add that the profession of which Dr. Page was a valued member may claim to be among his most prominent mourners.

#### NOTES FROM L'UNION MEDICALE.

*Salivary Calculi.*—M. Paulet, at the Imperial Society of Surgery, exhibited two salivary calculi which he found in Wharton's duct, in a patient affected with a purulent discharge issuing from the floor of the mouth. The calculi were in the duct of the left side, and M. Paulet extracted them by excision. He ascertained that the sub-maxillary glands of both sides were stuffed with calculi. These stones are not rare in Wharton's duct; as M. Paulet has collected 65 cases of them, while the foregoing is the only instance in which he is cognizant of their presence in the sub-maxillary glands themselves. M. Panar, however, presented a salivary calculus, which he had extracted by excision from the sub-maxillary gland. In this case pus was seen issuing from the open orifice of Wharton's duct. M. Desormeaux remarked that he had once extracted a stone from *Stenor's duct*.

At the same society M. Liégeois read a

paper, the subject of which was the *spermatic fluid*. He cited the investigations of various observers besides himself. The following are his conclusions, viz.:—1st. Every healthy man—adolescent, adult, or aged—who is free from anomalous peculiarities, defective conformation, and traces of former affection of the organs of generation, has in his spermatic fluid the essential elements of fecundation. 2d. Diseases—acute, chronic or constitutional—in the adult do not appear to produce *azoospermia*; which, however, is often the consequence of them in men of advanced age. 3d. *Blenorrhagic epididymitis*—the most common of all the affections of the internal organs of generation—almost always, if bi-lateral, definitively prevents the excretion of *zoösperms* and becomes thus a cause of sterility; when it is unilateral, it by sympathy induces a lowering of functional activity in the healthy testicle, diminishing the quantity of spermatozoa furnished by it, and thus exerting an unfavorable influence on the fecundating properties of the spermatic fluid; non-blenorrhagic epididymitis, whether bilateral or unilateral, is far from having the same degree of unfavorable influence as the blenorrhagic on the secretion and excretion. 4th. Affections involving the testicular parenchyma are always grave as regards sterility, whether both glands or one testicle only be concerned; of all these last-mentioned affections chronic syphilitic orchitis is the least to be dreaded in this respect, since the sterility it generally induces may disappear under appropriate treatment. 5th. Lesions which he denominates *peri-testicular*, *peri-epidymal*, and *peri-deferential* do not appear notably to affect spermatic secretion or excretion—leaving out of view varicocele, which, when carried to a certain point, induces testicular atrophy, and consequently *aspermatozia*. 6th. *Spermatorrhœa*, in the generality of cases, does not modify the spermatic secretion; in certain individuals affected with it, however, *azoospermia* may exist, even though they may not have reached that degree of prostration to which the affection often leads.

*Accidental Wound of an Artery during an Operation for Vesico-vaginal Fistula; Fatal*

*Result.*—M. Paul Horteloup communicated the case to the *Société Impériale de Chirurgie*. He was operating at the Hôpital Beaujon for vesico-vaginal fistula, and was just making the last cut with the bistoury when a jet of blood struck his face, and the vagina was filled at once by the hæmorrhage. Neither ice nor the tampon stopped the flow, which was, however, controlled by seizing the posterior lip of the fistula with a screw forceps and a polypus forceps. The tampon, injections of ice water into the bladder, compresses wetted with cold water to the abdomen, were used, and wine, beef-tea and ice administered. A few days after, the forceps were detached in the movements of the patient, and a new hæmorrhage set in, to be controlled as before, with the forceps. The patient, however, had lost so much blood that she sunk five days subsequently.

At the autopsy there was found general acute peritonitis, and a division through two thirds the diameter of the left utero-ovarian artery.

We perceive that advertisements of Female Medical Schools are making their appearance. Though our tastes are not in favor of Female Physic, we hold to the motto "a fair field and no favors asked"; and we therefore say, if medical journals are to be cumbered with advertisements, let the female persuasion have their share. It is another matter with certain extra-pharmaceutical preparations.

MASSACHUSETTS MEDICAL SOCIETY.—For the following report of the first day's proceedings we are indebted to the *Boston Daily Advertiser*.

The annual meeting of the Massachusetts Medical Society began in this city on Tuesday morning, June 1st.

At ten o'clock the members of the Society visited the Massachusetts General Hospital and the Boston City Hospital, where various interesting operations were successfully performed.

At 12 o'clock the members assembled in Bumstead Hall, Dr. Charles G. Putnam, of Boston, the President, in the chair. Two hours were passed in the reading of papers

which had previously been announced, as follows:—

Myxoma, or Hyperplasia of the Villi of the Chorion. By Alexander D. Sinclair, M.D., Boston.

2. General Management of the Insane. By Merrick Bemis, M.D., Worcester.

3. Formation and Significance of Renal Casts. By Robert Thaxter Edes, M.D., Hingham.

4. Physiological Action of Bromide of Potassium, as determined by experiment on the lower animals and man. By Robert Amory, M.D., Brookline.

At 4 o'clock, a second meeting was held in Bumstead Hall, when Samuel G. Webster, M.D., of Boston, read a paper on the Microscopical Study of the Nervous System.

*Evening Meeting.*—The annual business meeting of the Councillors of the Society was held at the Society's rooms, Temple Place, on Tuesday evening, Dr. C. G. Putnam presiding.

The Treasurer's report, which was read and accepted, stated that the receipts of the Society during the past year, including a balance of \$2022.28 from the previous year, were \$9384.97; the amount expended was \$7468, leaving a balance of \$1916.27. The principal expenditures—nearly \$2500—had been for publications. The gross amount received for assessments during the past year was \$3840, of which \$1139.70 was refunded to District Societies, leaving a net amount of \$2900.

The invested property of the Society amounted to \$30,420.17, the income from which during the year was a trifle over \$2000.

The Secretary read a list of sixty-six members who had been admitted to the Society since June 3d, 1868, and also a list of twenty members who had died during that period.

A letter was read from a member of the Society offering a prize of \$30 to any medical student of this State, or any regular physician of less than two years' standing, for the best paper on "The Physiological Action of some Drug of the *Materia Medica*, as determined by stated and original experiment."

The Committee on Resignations reported that the following members, being above 60 years of age, had signified their intention to retire from active membership:—A. W. Draper, West Roxbury; S. A. Toothaker, Wilmington; Joshua Porter, North Brookfield; S. D. Townsend, Boston; E.

Reynolds, Boston; C. H. Allen, Cambridgeport; David Bradford, Montague; H. C. Perkins, Newburyport; Enoch Cross, Newburyport.

The reports of several committees were read and accepted.

On motion of Dr. B. E. Cotting, of Roxbury, the following rule was adopted:—

“That all reports upon scientific subjects and scientific papers read to the Society be referred to the Committee on Publications, with instructions that they refer each separately to a committee of experts, whose names shall not be disclosed; and that such as said committee of experts shall designate shall be published at the expense of the society, if there be unappropriated funds in the treasury.”

The following were the officers elected for the ensuing year:—

*President*, Dr. C. G. Putnam. *Vice President*, Dr. H. L. Sabin. *Corresponding Secretary*, Dr. C. D. Homans. *Recording Secretary*, Dr. C. W. Swan. *Librarian*, Dr. J. C. White. *Treasurer*, Dr. F. Minot.

The orator chosen for the next anniversary meeting was Dr. Wellington, of Cambridge, and Dr. George H. Lyman, of Boston, was appointed chairman for that occasion.

The following gentlemen were chosen on the committee of arrangements:—Drs. C. D. Homans, R. M. Hodges, J. N. Borland, A. Coolidge and A. P. Hooker.

Boston was selected as the place of the next anniversary meeting. The meeting then adjourned.

The annual meeting of the society was held in Bumstead Hall, at 10 o'clock, Wednesday morning. At 1 o'clock, Dr. Alfred Hitchcock delivered the annual address. The proceedings closed with the anniversary dinner, which was served in the Music Hall at 2 o'clock, under the presidency of Dr. J. B. Upham.

**VALUE OF THE RHINOSCOPE.**—Dr. F. I. Knight, at the March meeting of the Suffolk District Medical Society, reported the removal of three polypi with the aid of this instrument. The patient, a young lady, 20 years of age, came to him with the following history. Eight months before, she washed her hair, and sat down by the window to dry it. She “took an awful cold,” had coryza, &c., and the next day and ever since had noticed complete obstruction of the right nostril on expiration, and considerable obstruction on inspiration. There had been no discharge from the nose since

the first few days. Her voice was much affected, she talking as if she was suffering from a severe cold in the head all the time. She had been told that she had catarrh, and had been given various solutions to sniff up the nose. On examination of nasal passages anteriorly, nothing definite could be seen. A large nasal probe could be passed through both nostrils to the pharynx. On examination of posterior nares with the rhinoscope, the obstruction was seen to be due to two large gelatinous polypi, moving from the mucous membrane over middle and inferior turbinated bones on the right side, one of which on expiration shut down like a valve over the inferior meatus. There was also a small fibrous polypus on the posterior surface of the soft palate. The polypi were all removed posteriorly by forceps applied with the aid of the mirror. The relief to the respiration and voice was of course immediate.

**RESULTS OF TRANSFUSION.**—Professor Landois, of the University of Griefswald, who has interested himself much in the subject of transfusion, after giving a critical account of the most recent publications on the subject, thus sums up, in a recent number of the *Wien. Med. Woch.*, the results that have hitherto been obtained:—1. Transfusion has been performed ninety-nine times in cases of hæmorrhage, in eleven of which cases no successful result was even possible. Of the remaining eighty-eight cases, sixty-five were attended with success, twenty were unsuccessful, and in three the result was doubtful. 2. It has been performed twelve times in cases of acute poisoning, one of these being hopeless. In three the results were favorable, and in eight unfavorable. 3. For various forms of disease attended with exhaustion, it has been resorted to forty-three times, the most unfavorable prognosis having been frequently delivered. In these the results were favorable in twelve, unfavorable in twenty-one, and doubtful in nine, while in one case it was a mere desperate experiment. Professor Landois observes that these statistics speak very satisfactorily for transfusion, and that the results would be far more favorable if this almost harmless operation were not usually driven off to the last minute.—*Medical Times and Gazette*.

In a paper on the Pathology of Typhus, and its connection with lesion of the cervical portion of the great sympathetic nerve, Dr. R. Beveridge says:—In a case of ex-



ophthalmic goitre, which occurred in the Aberdeen Infirmary, under the care of Dr. Reith, and of which the particulars were published in the *Medical Times and Gazette* of Nov. 11, 1865, I demonstrated the existence of extensive enlargement of the cervical ganglia of the sympathetic, and from that case was led to examine the condition of the nerve in typhus, with the result of finding in every case alteration of structure there to a greater or less extent.

From 1863 to 1865 an epidemic of typhus prevailed in Aberdeen, and during that period upwards of 1700 cases were treated in the Infirmary, and of these about 230 died. *Post-mortem* examination of these fatal cases was made as often as permission could be obtained from the relatives (which unfortunately was most frequently refused), but for the first eighteen months without any definite result being obtained. All the important organs of the body were examined, but especially the intestines, lungs, and brain; and in none was any constant lesion found. The intestines were usually found natural; sometimes, though rarely, with slight appearances of congestion here and there—never with ulceration. The lungs never presented any trace of deposit; they were usually natural, or with merely passive congestion behind, the result probably of position; sometimes this last was found to drift into low pneumonia. The brain usually presented the appearance of congestion, but without any effusion, and without any alteration in texture of the cerebral substance or of the membranes. It was not, however, till the sympathetic nerve was made the subject of examination that any definite result was obtained. When attention was directed to this, it was found to present lesion in the form of enlargement caused by granular deposit of some of the cervical ganglia, in every case examined. [These amounted to ten in number.]—*Medical Times and Gazette*.

**HYDROPHOBIA IN A FLOCK OF SHEEP.**—During the past two or three months hydrophobia has been alarmingly prevalent in the neighborhood of Preston, and especially so in the town itself. Many valuable dogs of all breeds have been destroyed at the police station with prussic acid, the whole number, good, bad, and indifferent, amounting to two or three scores or more. About three weeks ago, nine lambing ewes, the property of Mr. Draper, Bradley Hall Farm, Croston, six miles from Preston, were bitten by a strange dog, and having since exhibited undoubted symptoms of rabies, have just

been all destroyed. The lambs were preserved.—*Medical Press and Circular*.

**CRIES OF A FÆTUS IN UTERO.**—The *Scalpel* states that Dr. Dubreuilh, of Bordeaux, had under his care a girl of 16, who, towards the end of gestation, was seized with eclampsia. Chloroform was used, and a very small male child was extracted. The breech of a second child now presented, and, just as the water broke, the persons present heard the cries of the child, as if they issued out of a box, and they continued until the delivery was effected by the feet. The cries were heard at the moment the accoucheur pushed up the breech to seize the feet. Air had probably then penetrated into the uterus, which was not quite filled by the second fetus, and the latter, having inspired it, began to cry.—*Ibid*.

**URINARY INFILTRATION IN RELATION TO GANGRENE.**—G. Simon (*Deutsche Klinik*, 15, 1869) makes the following statements, based upon numerous experiments made on the lower animals:—

Acid wine, if pure and in small quantities, is as innocuous as water in its effect upon animal tissue. If alkaline, or if mixed with sufficient blood, pus or mucus to make it alkaline, its injection into animal tissue produces all the destructive effects which are usually ascribed to urinary infiltration.

Acid urine, far from tending to cause decomposition of tissue, seems to act as a preservative—like a solution of common salt. A portion, placed in a tight vessel, with a small quantity of putrescent animal tissue, remained acid five or six days, and on the tenth day was not yet decomposed.

Acid urine was allowed to remain for a long time in contact with the subcutaneous tissue, in living animals. From the absence of evil consequences in this, and all the preceding experiments, it is concluded that the danger from operations such as the supra-pubic puncture is not due to the presence of urine *per se*, but to that of alkaline urine—and that the appropriate precaution in such operations, is treatment directed against catarrh of the bladder, if any exist. It is also needless to keep the patient lying upon his face, or to leave the catheter in the puncture continuously.

The really important cause of gangrene in urinary infiltration is concluded to be the pressure of fluid upon the tissues in which it lies. The author has produced the same effect by simple water, injected so as to exert a constant pressure under the cutis.—*Allg. Med. C. Ztg.*, No. 31. D. F. L.

## Medical Miscellany.

**AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.** *Special Circular to Persons Interested in the Use of the Microscope.*—In making arrangements for the meeting of the American Association for the Advancement of Science, to be held at Salem, commencing at 10 A.M., August 18th, 1869, the Local Committee, in order to give encouragement to the general and increasing interest in the use of the Microscope, have decided to furnish rooms for the display and comparison of Microscopes, Objectives, Accessory Apparatus of all kinds, Test Objects, and Objects of Scientific and Popular interest.

It is intended to have as complete a collection as possible of instruments of both American and Foreign manufacture. Those who are possessed of Microscopic stands, Objectives, or Accessory Apparatus in any way remarkable for excellence of performance or design, are requested to bring them to the meeting.

The objects of this exhibition will be to assist the progress of scientific research, by social intercourse and a full comparison and discussion of whatever is new and important in microscopical investigation, and to encourage the manufacture and use of this valuable instrument.

Arrangements have been made to give ample opportunity for the use of the Microscopes both day and evening. A safe place has been secured for the deposit of instruments sent beforehand to the care of Mr. Bicknell, or brought by visitors who do not wish to keep them in their own possession.

A Sub-Committee has been appointed by the Local Committee to make the necessary arrangements. Further information relating to the subject can be had by addressing

EDWIN BICKNELL,

*Sec'y of the Sub-committee,*

Peabody Academy of Science, Salem, Mass.  
Salem, May 24, 1869.

**PARIS FACULTY OF MEDICINE.**—At the Faculté de Médecine de Paris, Dr. Regnaud, Professor of Pharmacology, was prevented from giving two of his lectures by the noise and outcries of his students. The excitement against the Professor is attributed to his severity at examination.

**MESSRS. CODMAN & SHURTLEFF,** makers and importers of Surgical and Dental Instruments, 13 and 15 Tremont Street, Boston, write us that they have been Dr. Anzoux's agent for the past ten years. They have printed copies of his catalogue.

THE Massachusetts Medical Society having offered a prize of fifty dollars for the best dissertation "which shall describe in plain language, briefly, an effective and ready method of ventilating sick rooms—one that can be put in operation at once, at the moment needed, with least difficulty and expense, in houses of ordinary construction," we hereby offer, as the only possible way of fulfilling all the conditions demanded, the following:—

PRIZE ESSAY ON AN EFFECTIVE AND READY

METHOD OF VENTILATING SICK ROOMS, &c. &c. &c.

*Pull down the upper window-sash and leave the fire-place open.*

The prize above mentioned may be sent to the Publishers of THE MEDICAL GAZETTE.—*N. Y. Medical Gazette.*

**PROFESSOR OPPOZZER,** of Vienna, has received the cross of knighthood of the order of Leopold. The rank of Aulic counsellor has been conferred on Professors Brücke and Skoda, of Vienna; and that of counsellors of state on Professors Jaksch and Halla, of Prague.—*British Medical Journal.*

**DR. HEBERT** says:—What every family should keep in mind is this, that mustard plasters ought not to be made with hot, but with lukewarm water.—*Medical Press and Circular.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Spontaneous Amputation in Utero—Sympathetic Ophthalmia.

ERRATA.—The signature "Editor" should have been appended to foot-note on page 301.

**PAMPHLETS RECEIVED.**—Monthly Report of the Department of Agriculture, for March and April, 1869, Washington.—Eleventh Annual Report of the Medical Superintendent of the Provincial Hospital for the Insane, Halifax, N.S.—Fibro-cystic Tumor attached to the Fundus of the Uterus; Seventeen other Tumors in the Cavity of the Abdomen; with some account of Abdominal Section for the relief of such and similar Cases. By W. W. Dawson, M.D., Surgeon to the Cincinnati (O.) Hospital.—Annual Report of the Births, Marriages and Deaths in the City of Boston, for the year 1868.

**DIED.**—In this city, May 29th, Calvin G. Page, M.D., aged 39.—At Quincy, May 21st, Ebenezer Woodward, M.D., aged 71 years.

**DEATHS IN BOSTON** for the week ending Saturday noon, May 23, 112. Males, 68—Females, 44.—Accident, 1—congestion of the brain, 2—disease of the brain, 3—bronchitis, 5—cancer, 2—cholera morbus, 1—consumption, 17—convulsions, 4—croup, 3—diarrhea, 1—diphtheria, 1—dropsy, 1—dropsy of the brain, 3—drowned, 2—dysentery, 2—epilepsy, 1—scarlet fever, 14—typhoid fever, 2—hemorrhage, 1—disease of the heart, 4—hemiplegia, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 3—inflammation of the lungs, 12—marasmus, 3—old age, 1—paralysis, 2—peritonitis, 1—premature birth, 2—puerperal disease, 2—purpura hemorrhagica, 1—pyæmia, 1—rheumatism, 1—unknown, 7—uræmia, 1—whooping cough, 1.

Under 5 years of age, 45—between 5 and 20 years, 10—between 20 and 40 years, 23—between 40 and 60 years, 18—above 60 years, 16. Born in the United States, 74—Ireland, 25—other places, 13.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, JUNE 10, 1869.

[Vol. III.—No. 19.]

## Original Communications.

### MANIA TRANSITORIA.

By EDWARD JARVIS, M.D., of Dorchester.

THIS is a form of mental disorder which suddenly appears in persons previously sound or not disposed to be unsound in mind; it has a short duration and suddenly disappears.

This is not exclusively a new or an old doctrine, but it has been taught in France and Germany for many years, by the managers of the insane, and by writers on these topics. It is recognized by psychological authorities in Great Britain. It is admitted and established by jurists and courts in Europe, in their management of persons who have committed acts which would otherwise have been considered as crimes, and for which they would have otherwise been doomed to death on the scaffold.

The case of Andrews, who was tried at Plymouth in December last, for homicide, has brought this subject prominently before the public here. As there is a difference of opinion in regard to this doctrine, especially in its application to the case of Andrews, it may be well to present the views of those who have written upon it, in connection with an account of Andrews's agency in the homicide, and of his trial.

Dr. Henry Maudsley, manager of a lunatic asylum at Hanwell, near London, and one of the editors of the *Journal of Mental Science*, says, "Cases of insanity are occasionally observed in which an attack of mania suddenly comes on, and soon passes away, so that although there is no epileptic fit, one can scarce avoid looking upon the attack as a sort of epilepsy. Now this Mania Transitoria may take on the homicidal form."\*

He quotes from the *Journal de Med. et Chir. Pratiq.*, 1833, the case of a shoemaker, who was of industrious, sober habits. He arose early one morning to go to work. In a short time his wife was struck

with his wild look and incoherent talk. He suddenly (*tout à coup*) seized a knife and rushed upon his wife to kill her. She had hardly time to escape with her child. Dr. Lowenthal was called. He bled and gave other remedies to the maniac. In the afternoon he was quiet. In the evening he regained the use of his faculties, but he had no recollection afterwards of the events of that morning.

Castelnau calls this *La Folie Instantanée, temporaire, passagère*, "mania instantaneous, transitory, temporary, fleeting, a mental disorder, which breaks out suddenly, like the sudden loss of sense in some physical diseases, and the subject is urged in a moment to automatic acts, which could not have been foreseen."\*

"The first act of the mania may be homicide, and the disease may pursue its course under the continued or intermittent form, but when the act of violence or homicide is the only maniacal manifestation, it is instantaneous, temporary, fleeting, transitory, insanity according to Henke, Marc, Cazauvielh, &c."

He quotes, in illustration, from Hiem of Berlin, the case of a councillor of state, who had ever enjoyed good health. He suddenly awoke one night, breathing stertorously. His wife endeavored to aid him. He assailed her with the most violent fury, and tried to throw her out of the window. After a struggle for half an hour he was exhausted. An emetic put an end to the paroxysm, and for fourteen years he had had no other attack.†

A laboring man of Gard, returning from his work, met his wife, and asked her if supper was ready. She immediately seized a knife and struck him a fatal blow. She had not been insane, though excitable, and belonged to an insane family.‡

Castelnau, referring to this form of mental disorder, says, "I could show by facts, already so numerous, recorded in the works of physicians devoted to the study of in-

\* Dr. Ph. Boileau de Castelnau in *Annales d'Hygiène Publique et de Médecine Légale*, xlv. 217.

† Castelnau, *Ann. Hyg. et Méd. Lég.* xlv. 222.

‡ Ibid., 993.

\* *Jour. Mental Science*, ix. 335.

sanity, and the observations of the insane, the existence of a mental malady which society has the greatest interest to know, in order to prevent consequences dangerous to the community and to the person affected."\*

Again Castelnau says, "We could cite a great number of facts, but these are sufficient to show that the various kinds of insanity, as of all the diseases of the organism, can establish themselves in a manner either progressive or sudden, and have a progress slow or rapid, continued, intermittent, or temporary."†

After a great variety of facts and arguments, Castelnau, at the end of his essay, says in conclusion, "There exist these instantaneous changes in the mental faculties, that is, instantaneous insanity."

"These changes have their first and only manifestation in a single act of qualified crime.‡

Castelnau's essay was published in 1851; seven years later, Dec. 14, 1858, M. Le Dr. A. Devergie read, before the Imperial Academy of France, an essay on the questions, "Where does reason end? Where does insanity begin?" This was printed in the *Annales d'Hygiène Publique et de Médecine Legale*, in 1859, vol. xi., second series. He confirms the opinions of Castelnau, in regard to instantaneous and transient insanity, except that he qualifies them with the certainty or probability, that all or nearly all these cases had been preceded by hereditary taint or some mental disease or irregularity in greater or less degree.

"Besides those cases of insanity produced under all these causes, is another mode of alienation, to which they give the name of *Transitory Insanity* (*folie transitoire*), that is to say, without preceding apparent symptoms, without cause, near or remote, appreciable to the world, bursting out as suddenly (*brusquement*) as a clap of thunder, and ceasing completely with a criminal act."§

"No motive for the act, either in ungoverned passions, or in acquired ideas; previous character and manner without reproach; absence of hallucinations; the explosion of the mania manifesting itself in one act of violence or crime, and the immediate return of reason after this act is accomplished; these, in my opinion, are the characters of *transitory insanity*."||

Devergie qualifies this description as above indicated:—"Nevertheless the word *transitory*, perfectly just for the world, in the sense that the mania was fleeting (*passagère*), although the act was of the most criminal nature, does not seem sufficiently exact for the physician. The persons of this description should not be considered as sound in mind when the idea of crime suddenly rises within them, and becomes the ruling thought, irresistible, stronger than their own will. The antecedents of their families, hereditary taint, divers acts of social life, propensities and tastes perverted, tendencies to silence and abstraction, thoughts of suicide, for years existing in many, have been the forerunners of the sudden outburst of irresistible criminal mania."\*

Devergie quotes the case of a young man of 19, son of a merchant of Bordeaux. He had been most regular and exemplary in all his previous life, an affectionate brother, dutiful son, faithful to his employer, a banker, and the heir of an immense fortune, but he was the child of insane parentage, and had a mother-in-law for whom he had a deep aversion. There was a dinner-party at his father's house, which passed without unusual incident. "At the time of the dessert, Julius, the youth, left the table, and went to the hall to warm himself; the fire was not burning; he then went to his chamber, took his gun and straw hat to walk in the fields as he was accustomed to do. Then the thought of suicide, which had troubled him for a month, suddenly presented itself, and as suddenly changed to the thought of killing his mother-in-law. He threw down the gun, went to his brother's chamber, took two pistols, which had been loaded three months, leaving his own pistols that he had loaded the evening before. He went to the dining-room where his mother-in-law was sitting at the table with his father, and discharged one of the pistols into her temple."† He was rational immediately afterwards, and, so far as is known, remained sane.

Upon this case Devergie remarks:—"If the act which young Julius committed was one of mania, it was in him a passage sudden and rapid from reason to insanity, and a return as sudden from insanity to reason. This then is a very exact example of that species of mania which is called *transitory*." This case was submitted to MM. Gintrac and Delafosse of Bordeaux, Calmiel, Tardieu

\* Castelnau, *Ann. Hyg. et Med. Leg.* xlv. 216.

† *Ibid.*, 438.

‡ *Ibid.*, 998.

§ *Ann. Hyg. et Med. Leg.* xl. 2d Ser. 407.

|| *Ibid.*, 408.

\* *Ann. Hyg. et Med. Leg.* xi. 2d Ser. 408.

† *Ibid.*, 398.

and Devergie, who gave their opinion, "that Julius, at the moment of this action, had not the possession of his freedom of will," and the court and jury acquitted him fully of the charge of crime.\*

These doctrines are sustained by French lawyers, and put in practice by French courts and juries, in the trials of cases of this nature. "Bellard, a jurist (*jurisconsulte*) of high character, whom no one suspects of being indulgent, recognizes the reality of instantaneous insanity." He says, "There are some madmen whom nature condemns to eternal loss of reason, and others who only lose it for a moment (*instantanément*) by the effect of some great grief, surprise or other cause of this kind. There is no other difference between these two forms of mania than that of duration; and one whose head is turned for some hours or for some days is as completely insane, during this ephemeral action, as the one who is mad for many years." *Les aliénés devant les cours d'Assises.*†

To this Devergie adds, "So in the short period of thirty years or more, we have passed from incredulity, I may say, from ignorance the most profound of the nice distinctions of insanity, with such immense advance, that now our judges and juries accept as founded on evidence, not only delusions on a single point, monomania, but even those transitory aberrations of reason, which, in the judgment of the world, transform a man of previously honorable character into a criminal, and one so much the more wicked because he has covered his perversion of heart so completely as to conceal, through a long period of years, the baseness of his act under the garb of the most irreproachable life."‡

Esquirol says, "These deplorable homicidal impulses are spontaneous and fleeting, and without habitual delusion."§ Referring to murder by one in this condition, he says, "This presupposes the suppression of all intelligence, all sensibility and all volition. The following fact will best explain my meaning. A man, 32 years old, tall, thin in flesh, of a nervous temperament, amiable disposition, was educated with great care, and accomplished in the fine arts. He had had a cerebral affection from which he had recovered many months previous to his arrival in Paris, two months ago. There he conducted himself with great propriety, until one day, when he en-

tered the Palace of Justice, and there threw himself upon a lawyer and seized him by the throat. He was arrested and taken to prison, and put under my care on the same day. At my first visit, on the next day, he was calm, without anger or resentment, had slept all night, and had sketched a landscape. He spoke of his going to the court room the evening previous, coolly, but had no recollection of his conduct there or of his motives. Nor did he manifest any regret. He answered my questions courteously and with an air of sincerity. 'I went to the Palace of Justice, as I would to any other place, without any special purpose, merely as a sight seer. I not only had no ill will against the advocate, but did not even know him. I cannot understand how I could have committed such an outrage.' When I said, 'that it could be explained only by the sudden attack of some disease,' he said, 'you may explain it as you please, I am not conscious of having been ill, and I cannot tell how this could have happened.' During the three months that he remained under my observation he manifested not for an instant any disorder of the mind."\*\*

Castelnau says, "There is no want of authorities to establish the doctrine of instantaneous insanity." The observations made by writers on medical jurisprudence (*medicins legists*) of the present day leave no doubt of the existence of this mania of a few instants, during which men, who have never manifested insanity, all at once (*tout à coup*) are completely deprived of their reason, and give themselves up to the most deplorable excesses. The learned chief editor of *Journal du Medecin et de Chirurgie Pratique*, offers five examples of this kind of mania. In four of these, accidental circumstances only prevented persons, whose previous life had been irreproachable, from committing crimes. The fifth case was that of a woman who killed her mother and three others, and wounded a fourth person.†

Tuke quotes and refers to a large number of cases of impulsive homicidal mania, from Marc, Otto, Michu, Esquirol, Ray, and others, showing that some had delusions, some had inherited disease or defective cerebral organization, others had manifested irregularities of mind before, and some after the outbreak, and of a few nothing is shown except the single fact of sudden and short mania. Following this description of these cases, he adds:—

"To this analysis of cases, a brief sum-

\* *Ann. Hyg. et Med. Leg.* xi. 2d Ser. 499.

† Castelnau in *Ann. Hyg. et Med. Leg.* xlv. 217.

‡ *Ann. Hyg. et Med. Leg.* xi. 2d Ser. 402.

§ *Malad. Mentales, sous les Rapports Médico-Légaux*, ii. 104.

\* *Malad. Mentales sous les Rapports Médical et Médico-Légal*, ii. 102. † *Ann. Hyg. et Med. Leg.* xlv. 221.

mary of the chief characteristics of homicidal insanity may be added. It manifests itself under very different mental conditions. It may or it may not be associated with decided lesions of the intellect. It may or it may not be impulsive in character. It may or it may not be preceded by appreciable premonitory symptoms. It may or it may not be manifested in early life. However, careful investigation will reveal, in the majority of cases, a disturbance, more or less, of the intellectual as well as of the moral faculties; leaving still a considerable number of cases in which there is a sudden, blind, motiveless, unreasoning impulse to kill."

"An inquiry into the patient's history will generally detect a change in the character. This, however, obviously cannot be looked for in cases where the mental disorder can be traced back into infancy or where the intellectual or moral defects are congenital."\*

In the analysis of cases, Tuke does not deny the facts as they are presented, the suddenness of the outbreak, the shortness of the paroxysm, nor the suddenness of the cessation, but he adds, that in most of the cases, the sudden and transitory disease was grafted on a mind, which was prepared for this attack by hereditary predisposition, by perversions, or eccentricities, or was otherwise unsound, though not manifestly insane, and that subsequent history showed that most of these were insane, and that after all these deductions, there were a considerable number in which no such preparatory condition could be proved.

Fortunately for the safety of society, these cases of sudden outbreak of mania in persons of sound mind are rare, and confined mostly to those whose brains are imperfect from heritage or impaired by intemperance, or indulgencies, eccentricities, or irregularities and indiscretions, which, though not amounting to disease of the mind nor recognized as such, yet prepared the way for its appearance, whenever a suitable exciting cause should present itself.

The seventy-five to a hundred cases of transitory mania reported are gathered from wide and manifold opportunities of observation in Europe and America, principally in France and Germany. Some psychologists of large experience have met none. Dr. Bell, at the trial of Rogers, after stating that he had had upwards of a thousand patients under his charge,† said, "I have heard of many cases where the disease was

only transitory, from Dr. Woodward and others, though I am not familiar with cases of such short duration, under my own observation."\*

Dr. Choate said that he had had charge of between three and four thousand patients at the Taunton Hospital in the course of fifteen years, and in that time he had not seen any such case.†

Although the cases of complete mania transitoria, involving the three essential elements, sudden outbreak, short duration, and sudden cessation are very rare, yet cases including one or more of these elements are more common.

#### SUDDEN OUTBREAK.

Pritchard says, that "many instances are known, in which a sudden impulse to commit some atrocious act, has arisen in the mind of a person otherwise apparently sane, and certainly in full possession of his intellectual faculties."‡

Esquirol says, "There are other monomaniacs who kill by instinctive impulse. They act without consciousness, without delusion, without motives. They destroy by a blind impulse, instantaneously, independent of their volition."§ Elsewhere, he speaks of persons who suddenly (*tout à coup*) change their relations to persons and things. They hate those whom they loved before, they are at war with all the world; a woman, the very image of candor and virtue, as meek in temper as modest in manner, who only speaks words of tenderness and generosity, a good daughter, wife, mother, all at once (*tout à coup*) she loses her reason. Her timidity is changed into audacity, her sweetness into ferocity, she now offers nothing but injury, blasphemy, obscenity; she exposes her person nakedly; she threatens her father, beats her husband, strangles her children."|| With a few the impulse is so violent and instantaneous there is no struggle of the will to resist, and the act follows immediately."¶

Esquirol quotes the case of a teamster from Le Marcure de Souabe, who "left home in perfect health, was suddenly (subitement) attacked with mania on the road. At Nogglingen he abused a woman. At Unterlobengen he walked in front of his team with a hatchet in his hand. Before reaching Hussenhofen he struck a woman, the first person he met, several blows with his hatchet and left her prostrate in the ditch by the side of the road. Next he split open

\* Trial of Rogers, 156.

† Trial of Andrews, Pamphlet Report, p. 47.

‡ Treatise on Insanity, 27.

§ Malad. Ment. ii. 99.

|| Malad. Ment. Rapports Medico-Legale, ii. 131-132.

¶ Ibid., p. 101.

\* Bucknill and Tuke On Insanity, 201.

† Trial of Rogers, 119.

the head of a boy 13 years old. Then he buried his hatchet in the skull of a man 30 years old, and spilled his brain on the highway, and gave him many more blows on the body. Then he left his hatchet and his team and went on alone. Meeting two Jews, he attacked them, but they escaped. Next he attacked a peasant, who resisted him, and raised help to arrest him. They showed him the dead bodies. He then said, 'It was not I, but my evil spirit that committed these murders.'<sup>†</sup>\*

Castelnau says, that to numerous authorities already cited, he would add that of Dr. Lanier, a distinguished medical psychologist, who states in *Ann. Med. Psych.* that "from certain causes, persons are rendered powerless to resist an idea suddenly presenting itself to them, or not existing before. This idea may impel them to suicide, murder, theft, or other crime."<sup>†</sup>

Tuke quotes a case from Marc I. 242, of a man who in a paroxysm of fury cut his son's throat.<sup>†</sup>

Dr. Ray, after describing many cases, under various categories, according to their characters, says, "In the first group, we have the simplest form of homicidal insanity, in which the desire to destroy life is not only prompted by no motive whatever and solely by violent impulse, but without any appreciable disorder of body or mind."<sup>§</sup> He quotes a case from Dr. Otto, in *Edinburgh Phrenological Journal*, vi. 611, of a man 37 years old, who had had fits of giddiness. The state of his health was perfect, in mind as well as in body, when he walked out with his son, 10 years old. When near the water a strange feeling came over him, and it appeared like a matter of absolute necessity to drown himself and his son. While attempting it, the boy was taken from him; he plunged into the water, but was rescued and restored to his right mind. He then quietly described the whole, but could not explain the cause of the sudden rising of the desire to drown himself and his son. Probably the cause was a congestion of blood in the brain, such as had produced giddiness before."<sup>||</sup>

Dr. Ray gives another case, from Michu, sur la Monomaniac Homicide, 99. "A woman, ten days after confinement, suddenly having her eyes fixed upon her child, was seized with a desire to strangle it."<sup>¶</sup>

Dr. Ray, in the trial of Rogers, said

"Insane impulses often come on very suddenly, and appear to be uncontrollable."<sup>\*\*</sup>

At the same trial, Dr. Woodward said, "The outbreak or apparent commencement of the disorder is frequently abrupt and instantaneous."<sup>†</sup>

On the same occasion Dr. Bell said, "In cases of outbreak, the impulse is so sudden that the patient is hardly conscious of his acts."<sup>‡</sup> Tuke quotes a case from Marc of a man aged 60, dejected but not considered insane, who suddenly seized a hammer and struck a child on the head with it. He was much attached to the child.<sup>§</sup> And another, from the Newgate Calendar of William Brown, who strangled a child whom he accidentally met. He had never seen the child before, had no malice against him, and could give no motive for the act. He bore an exemplary character, and had never been suspected of being insane.<sup>||</sup>

Dr. Woodward, speaking of the cases of fifteen homicides under his care in the Worcester Hospital, says, that seven of them were not considered insane before they committed the act. They were at work at their several employments; were not observed by those associated with them to have any evidence of alienation; they knew as well as others right from wrong, how to manage their affairs, and conduct their business as well. The first overt act of insanity was the homicidal act, and that was impulsive.<sup>¶</sup>

Esquirol adds to the detailed description of a considerable number of cases of sudden and violent attacks of mania, "In these, the third series, the impulse is sudden, instantaneous (*subiter, instantanée*), without reflection, stronger than the will. The murder is committed without interest, without motive, and frequently upon the dearest friends."<sup>\*\*</sup>

#### SHORT DURATION.

Besides the cases already quoted and referred to, which are distinctly described as sudden in their manifestation and disappearance, and short in their duration, there are many others, the beginning and ending of which are not specifically mentioned, but only spoken of as short, transitory, fleeting. It is a natural inference, that these also were rapid in their development and cessation. Yet not to assume more than is given, these are placed in this separate chapter, leaving it for those to whom it may seem probable, to conclude that the

\* *Malad. Ment. Rapports Medico-Legale*, ii. 832.

† *Ann. Med. Leg. et Med. Leg.* xlv. 437.

‡ Bucknill and Tuke, 197.

§ *Med. Jurisprudence of Insanity*, 205.

|| *Ibid.*, 210.

¶ *Ibid.*, 214.

\* *Trial Rogers*, 163.

† *Ibid.*, 160.

‡ *Ibid.*, 157.

§ Bucknill and Tuke on *Insanity*, 196.

|| *Ibid.*, 198.

\*\* *Malad. Ment.* ii. 834.

¶ *Worcester Hospital Report*, x. 73.

outbreak was gradual and even manifest, both in its approach and in its fading away.

These cases are simply reported as of short duration, spasmodic, comprising a single paroxysm of lunacy, and that characterized only in the propensity to commit an act of violence or crime, or the actual perpetration of the deed.

Bucknill, in a note to his essay on Criminal Lunacy,\* quotes the opinion of Dr. Forbes Winslow, given at the trial of Anne Brough for murder, that "cases of temporary insanity resulting in a desire to commit murder or suicide are very common."

Esquirol says, in one place, "These impulses are spontaneous and fleeting."† And in another, "The act accomplished, the access is over."‡

Dr. Ray recognizes this, when, at the trial of Rogers, he said, "The violence of the paroxysm may be as great in transient as in permanent mania." And again, "I do not consider the duration of the defendant's affection an essential particular."§

Dr. Woodward, in the same trial, said, "The impulse generally expends itself in a single act."|| "Cases of as short duration as the present are not infrequent, though they can hardly be called common."¶ "The outbreak of an insane person seems to be a safety-valve by which to let off his accumulated excitement."\*\*

#### SUDDEN RESTORATION.

"Recovery from insanity generally takes place gradually, though occasionally the disease may suddenly disappear, on the occasion of certain moral or physical impressions."†† In proof of this, Dr. Ray quotes several cases of sudden restoration to reason. One from Pinel, of a gentleman in a fit of depression or delusion, going to drown himself, but was attacked by robbers when near the water, and defended himself. While in this struggle, his reason returned, and his desire of self-destruction disappeared. Another case is from Dr. Rush, of a patient who became intensely alarmed when riding, by the horse running away. The fright took the place of the mania, which appeared no more. Rush mentions several other cases of sudden restoration of lunatics to their reason.

Prichard states several cases of sudden recovery in the English insane asylums.

Esquirol mentions a girl who was sud-

denly restored, by seeing the actual cauterization which he was about to apply to her body. And another, who, at the appearance of the catamenia, suddenly found her reason come back to her. He quotes a third case, in which the insane idea of long standing disappeared almost suddenly (*presque tout à coup*).\*

Dr. Ray, in the trial of Rogers, said, "Crises are sometimes observed in insanity, where the force of the disorder seems to expend itself in a single moment or upon some particular occasion."‡

#### CALMNESS AFTER THE ACT OF VIOLENCE.

After a deed of violence by the homicide, his agitation sometimes ceases, and he is as calm and indifferent as if he were merely an uninterested spectator. Peter Neilson, in Scotland, drowned four of his children in a pit, then returned and told the people what he had done. He went back to the pit with the people and saw the dead bodies, without emotion.‡ Rice, who, in Concord a few years ago, killed his father, in the house, with the tooth of a harrow, and then threw him down the cellar stairs, was immediately calm, sat down by his mother's side and told her that they would say that his father fell down stairs and broke his head in the fall. Dr. Woodward mentions the case of a man in the hospital who, in a sudden impulse of excitement, seized a bludgeon, and struck a deadly blow on the head of an inoffensive female. In a moment he was as cool as ever, and quite unconcerned, as if he had done no injury to any one.§

Esquirol says, "Some monomaniac homicides, after the act, appear to be relieved of all agitation and distress. They are calm, without regret. They contemplate their victims with a coolness, and sometimes with a sort of satisfaction.||

In the trial of Rogers, Dr. Bell said, "It is a well-settled fact that after paroxysms of violence the insane often appear calm and tranquil."¶ Dr. Ray said, "The calmness of the defendant after the homicidal act is in accordance with general experience."\*\* Dr. Woodward: "The calmness of the defendant after the act coincides with common experience."††

Henrietta Comier, who cut off the child's head and threw it into the street; the teamster who killed four persons and assaulted three others; the woman who killed her mother and three others; the youth who

\* *Malad. Mentales*, p. 60.

† *Ibid.*, ii. 104.

‡ *Ibid.*, p. 105.

§ *Trial of Rogers*, p. 165.

¶ *Ibid.*, p. 158.

|| *Ibid.*, p. 161.

\*\* *Ibid.*, p. 160.

†† *Ray, Med. Jurisprudence of Insanity*, p. 327.

\* *Malad. Mentales*, ii. 832.

† P. 169.

‡ *Ray, from Otto, Med. Jurisprud. of Insanity*, p. 219.

§ *Hospital Report*, x. 86.

¶ *Malad. Ment.* ii. 105.

\*\* *Trial of Rogers*, p. 158.

†† *Ibid.*, p. 165.

‡‡ *Ibid.*, p. 160.



shot his mother-in-law, and very many others described by Marc, Esquirol, Tuke, Ray, &c., were calm and even indifferent after the commission of their acts of violence.

#### ABSENCE OF MOTIVE.

Some lunatics, who commit homicide or other deeds of violence, have motives for their actions, which they recognize and acknowledge. But these are usually imaginary and out of relation or proportion to the act. They frequently act under delusions, which, if real, would be sufficient reason for their conduct if they were sane. Others act without motives. They feel impelled to their strange conduct by forces which they cannot resist or control. "These," says Esquirol, "act without consciousness, without passion, delusion or motive."\* "Such is the power of this disorder, that persons of the sweetest temper are driven to violate laws the most sacred, and kill those who are the dearest to them. Deprived of reason, they are influenced by no passion and no motive."† He mentions seven cases of this motiveless momentary insanity.

Tuke describes and quotes thirty-one cases of homicide, violence, or propensity, which he arranges in a class, under the descriptive head of "without marked disorder of intellect," and without premeditation and design.‡ Some, like the Suabian teamster before quoted, yield blindly to their excited destructive propensity and attack, injure, or destroy whatever or whoever may be in their way.

#### NO REMORSE AFTER CRIMINAL ACT.

Many of the insane, who commit acts of violence, murder, assaults, &c., under the influence of delusion, paroxysm, or impulse, when they regain their reason, do not feel that they were free agents nor responsible for their conduct at the time, as sane persons are. They may have killed those whom they most loved, wives, husbands, parents, children, and mourn their loss as deeply as they would the same event from any other cause. Yet ordinarily they feel none of the remorse that sane murderers would, none of the bitterness of self-condemnation.

Gall quotes a case of an insane woman who drowned her little son. "She behaved in the most regular manner, expressed the deepest repentance for the act, but did not consider it as a crime."§

Ray says, "The homicidal maniac, after gratifying his bloody desires, testifies neither remorse, nor repentance, nor satisfaction."\* A large part of the insane homicides and incendiaries described by the writers on these topics are said to have shown no remorse; and although they may have confessed the facts, and their agency in them, they did not charge them upon their consciences as sins.

A young incendiary, who had set three fires in a state of mania, was brought to my care. He coolly confessed his agency in these facts, and regretted it, but felt no pang of conscience.

Thus men who are even sensitively conscientious in regard to their conduct in health, commit atrocious acts in their insanity, and afterwards, when reason is restored to them, they charge themselves with no sin for these acts; they feel that they were not then responsible. Their calmness seems to those who do not understand the disease to be hardihood in crime, and is held by them as evidence of guilt, while the psychologist looks upon it as a proof of innocence and irresponsibility.

#### NO CONSCIOUSNESS DURING THE ACT, NOR RECOLLECTION AFTERWARDS.

Among the significant peculiarities connected with the violent acts in the paroxysms of some of the insane are unconsciousness during the act, or outbreak, and forgetfulness or absence of recollection afterwards. In these cases, the mind seems suspended and receives no impression, and, of course, retains none. Referring to the acts of a maniac in his brief paroxysm, in the trial of Rogers, Dr. Woodward said, "the memory of what has occurred is frequently obliterated;"† and Dr. Bell, "in cases of outbreak the impulse is so sudden that the patient is hardly conscious of his acts. It often occurs that after the paroxysm has ceased the patient has little or no recollection of the act itself, though he remembers pretty well what preceded and what followed.‡

The young man who attacked the advocate in the court room of Paris already described, had no consciousness of the act at the time, and no recollection afterwards.

Dr. Laycock, the learned Professor of Medical Psychology in the University of Edinburgh, in a lecture on the legal responsibility of the insane, quoting the case of Bryce, who had killed a person, but had no recollection of it, said, "want of recollec-

\* *Malad. Mentales*, ii. 99. † *Ibid.*, p. 102.

‡ Bucknill and Tuke, *Insanity*, 191.

§ Works, i. 298.

\* *Medical Jurisprudence of Insanity*, p. 231.

† *Trial of Rogers*, p. 161.

‡ *Ibid.*, p. 157.

tion is common in homicidal lunatics of a certain class."\*

Dr. Ray, in trial of Rogers, said "where the paroxysm of insanity is very severe and the conduct of the patient very violent, I have generally found a breach of consciousness in his mind. He appears to have lost a portion of time out of his recollection. I have always inquired of patients in regard to the degree of their consciousness, and I cannot think of a single instance where one was conscious of everything during the paroxysm."† Dr. Ray, in his *Medical Jurisprudence of Insanity*,‡ a work of the highest authority in America and Great Britain, quotes the instance of a girl who, in a paroxysm, was violent, sometimes attempting her own life and sometimes that of her mother. The fit, which, altogether, continued one or two days, being over, she recovered her affection for her mother, and asked her forgiveness. She did not recollect all the circumstances of these fits, and denied, with feelings of surprise and regret, some of the particulars which were related to her."

Castelnau gives several cases of similar forgetfulness of the events of a paroxysm of mania. The shoemaker who suddenly attacked his wife,§ the man in Rue de la Porte d'Alais, in Paris, who was suddenly made insane, and broke his furniture, and abused his wife;|| the woman who grossly insulted her companions in an outbreak,\*\* all these severally had no memory after the restoration, of what they had done in their insane excitement. So also the tailor, whose case he quotes from Marc, De la Folie, ii. 512, who suddenly became insane, and began to overturn furniture and attacked his wife, had the same unconsciousness of his acts at the time, and the same want of recollection the next day.††

Baron Martin, presiding at the trial of Townley, for the murder of Miss Goodwin, at Derby assizes, December, 1863, in his charge to the jury, said, "In one species of insanity, the patient lost his mind altogether, and had nothing left. Such a person would destroy his fellow-creatures as a tiger would his prey, by instinct only; a man in that state had no mind at all, and therefore was not criminally responsible."‡‡

A boy under my care as a patient was ordinarily as quiet as other and sound persons. One night he refused to go to bed at

his usual time and in his usual way. I endeavored to persuade him, and not succeeding, I took his hand to lead him to his chamber. Immediately he broke out in furious rage, and for three quarters of an hour he tried, in all ways and means, to injure me, and the persons and things about him, to bite, strike, kick, scratch, overturn furniture, books, &c. At the end of this time he became quiet, apparently exhausted, and fell asleep in my lap. We then put him to bed. All this time he seemed utterly unconscious, and to be governed merely by instinct. The next day he had no recollection of the events of the evening. He was languid and feeble, as if he had passed through great excitement or labor; but after this, he had no more paroxysms, nor, in the four or five years succeeding, during which I knew of his condition, did he have any further mental disturbance.

#### INSTRUMENTS OF INJURY.

A sane man, whether honest or criminal, when he has an object in view, a purpose which he premeditates and plans to accomplish, usually prepares in advance the means fitted for his object, and obtains the best instruments within his knowledge or reach. The insane, under homicidal delusions or propensities, sometimes make such preparations, and obtain arms, guns, pistols, knives, razors, which they use for their destructive purpose. But when the paroxysm is sudden, and the propensity to kill or injure comes after or with the outbreak, then he seizes whatever may be within his reach at that moment and place.

"The criminal lays his plan for the execution of his designs. Time, place and weapons are all suited to his purpose. The homicidal monomaniac, on the contrary, for the most part, consults none of the usual conveniences of crime. He falls upon the object of his fury, oftentimes, without the most proper means for accomplishing his purpose."\*

One of Dr. Woodward's homicidal patients was standing before his fireplace, by the side of his wife. He was suddenly excited with mania, then took the andiron which was then present, and with it struck his wife a fatal blow.† Another, in the same mental state, took a billet of wood that lay before him, and used it with the same deadly effect.‡

Dr. Ray quotes a case from Georget (*Discourse Medico-Legale*, 153) of an epileptic, who, in a paroxysm, ran through the fields;

\* *Journal of Medical Science*, London, x. p. 361.

† *Trial of Rogers*, p. 161.

‡ P. 213.

§ *Annales d'Hygiène et de Médecine Légale*, xlv. p. 222.

|| *Ibid.*, p. 224. \*\* *Ibid.*, p. 226.

†† *Ibid.*, p. 223.

‡‡ *Journal Mental Science*, ix. p. 596.

\* Ray's *Med. Jurisprudence of Insanity*, p. 232.

† *Worcester Hospital Report*, x. 78.

‡ *Ibid.*, p. 80.

he pelted one man with stones, which he threw at him; he knocked down another by beating him on the head with a large stone in his hand; he attacked a third with a spade which he found in the field, and a fourth with stones.\*

Esquirol gives account of a woman who killed her child, stabbing it twenty-one times with scissors.†

Castelnau speaks of one who did a similar work with a pocket-knife.‡

An epileptic patient under my care, was disposed to fight in his sudden outbreaks. Then he would use whatever means happened to be before him. In the house he took up books, chairs, inkstands. When walking in the fields with his attendant, he took up stones to throw at him, and once he used them as mallets in his hands to beat his companion.

(To be continued.)

# THE PHYSIOLOGICAL AND THERAPEUTIC RELATIONSHIPS OF ERGOT OF RYE.\*

A Thesis for the Degree of Doctor of Medicine; and to which was awarded the First Prize of the Boylston Medical Society for 1869.

By FRANK W. DRAPER, M.D.

(Continued from page 312.)

It concerns us now, from this review of the physiological symptoms of the action of spurred rye, to draw some inferences concerning its *modus operandi* in the system. On this deeply interesting question many and very varied opinions have been expressed, each observer arriving at conclusions oftentimes quite at variance with those of his predecessor. Thus the earliest authors claimed that all the effects of ergot, whether manifested in the uterine or in the nervous systems, were due to the presence of a poison in the blood, and to the efforts to eliminate it. Wright classes the drug as a "narcotico-acrid" agent, whose effects are due to its secondary depressing or sedative influence. Certain French authorities, of acknowledged repute, regard it as a stimulant and excitant, and illustrate their theory thus:—"If, under the influence of ergot, feeling and motion are observed to return to limbs previously paralyzed, we should not be inclined to call in question its power as a stimulant on the spinal cord." (*Bibliothèque du Med. Pract.* p. 230.) Parola and the Italian school of observers insist that the varied physiological and therapeutic effects may all be referred to a general hyposthenic influence on the whole

circulatory system, and make it the analogue of bloodletting and tartarized antimony. Thus, in parturition, ergot favors uterine contraction by acting on the engorged vessels of the uterus; these vessels having been depressed by the "hyposthenic" action of ergot, the organ is no longer confined by their state of excessive congestion, and can contract freely and accomplish its function. Again, Headland, an authority of universally acknowledged weight, says of this agent that "it is a stimulant to the muscular nerves of the uterus of the female, but to no other nerves in marked degree"; and, in another connection, when speaking of its effects in an overdose to produce "sometimes syncope, and sometimes narcotism," he says, "this is not the office for which it is employed, and is altogether distinct from its operation as a special stimulant, which is exerted only on the ganglionic nerves of the muscular uterine." In small doses it produces no other effect, and thus its action is purely and wholly local in its nature.—(Action of Medicines, p. 262.) So late as 1863, a writer in one of the British medical journals claimed that the specific action of spurred rye in producing uterine contractions was due to its nauseant effect; and he had observed that other depressant emetics, as tartarized antimony and ipecac, produced similar results, while, on the other hand, in cases where vomiting was absent after the administration of ergot, the uterine inertia remained *in statu quo*. Within the past year, a contributor to the *American Journal of the Medical Sciences* has urged ergot as an efficacious remedy in neuralgia, basing his theory on the premise that the physiological effect of the *secale cornutum* was to stimulate the vaso-motor nerves; and presuming neuralgia to consist of a disordered nutrition, "a cry of the nerve for healthy blood," the existing condition would be thus effectually counteracted.

But on a careful analysis of the various symptoms which follow the exhibition of ergot, it does not appear that any of these theories offer a full and satisfactory explanation of all the phenomena. Each one has its features of apparent plausibility, but when applied to the test of a systematic analysis of the phenomena produced, it is found to be wanting in essential points. But it seems to have been reserved for our own day, and we may almost say, for our own country, to witness the discovery of the true mode of action of ergot, and to Prof. Brown-Séquard belongs the distinction of first clearly demonstrating the theory

\* *Med. Jurisprud. Ins.*, p. 209.

† *Malad. Ment.* i. p. 231. ‡ *Ann. Hyg.*, xlv. p. 439.

which satisfactorily accounts for all the varied, and sometimes apparently heterogeneous, physiological and therapeutical powers. His view may be presented in the following proposition:—*Ergot is a special stimulant of the unstriated or involuntary muscular fibre wherever it is found.*

Before discussing the truth of this proposition, it may be well to look for a moment at the nature and distribution of the anatomical tissue, the muscular fibre of organic life, which is said to play so important a part in the action of ergot on the economy. According to Wilson (Human Anatomy, p. 171) "the ultimate fibre of organic life or smooth muscular fibre, is a single homogeneous filament, much smaller than the fibre of animal life, flat, smooth, and without transverse striae. It is distributed abundantly in the animal frame, and is met with where a distinct contractile power, independent of mere elasticity, is required; as follows:—in the alimentary canal, from the middle of the œsophagus to the internal sphincter ani; in the posterior segment of the trachea, and in the bronchial tubes to their finest ramifications; in the excretory ducts of the various glands; in the ureters, bladder, and urethra; in the uterus, vagina and Fallopian tubes; in the middle coat of the arteries, veins, and lymphatic vessels; in the iris and in the corium of the skin."

Here, then, we have a tissue endowed with contractile power to a high degree, and distributed very generally through the system. Any agent possessing the power of affecting this in any degree must create, directly or indirectly, symptoms in great number and diversity, and in endeavoring to apply the test to ergot, to draw the analogy between the various phenomena presented by the artificial influence of this agent, and those consequent on certain pathological conditions, we are bewildered by many collateral questions which seem to extend investigations indefinitely. We can only examine briefly some of the more evident relations, and attempt to analyze the phenomena of the action of ergot on the system in their application to the proposition of its general physiological action.

If a proper dose of *secale cornutum* be taken, it is absorbed and enters the blood directly; with that fluid it circulates to all parts, reaching in its course every organ, and extending its influence to the smallest artery. These minute vessels contain, as their middle coat, a layer of organic muscular fibre, readily obnoxious to stimuli. The first and more obvious effect of stimulation of the circular fibres, is a contraction

and diminution of the calibre of the vessel. Virchow has shown that this contraction may, under certain circumstances, proceed until the canal is almost entirely obliterated. (Cellular Pathology, p. 147.) The legitimate consequence of this is, necessarily, a temporary anæmia. Now ergot, presenting itself throughout the body, to all the arterial ramifications, performs, through its active principle, this stimulant function. This action, with its resultant effects, has been demonstrated by experiments on animals, Brown-Séquard having "repeatedly seen the diminution of the calibre of the blood-vessels of the pia mater of the spinal cord, taking place in dogs after they had taken large doses of ergot. (Braithwaite's *Rel.* 1861, p. 39.)

In view of this theory of general anæmia as one effect of ergot, it becomes an important question to determine what becomes of the blood in such cases, its total quantity remaining the same in the body. There is but one apparent reservoir for this back flow, and that is found in situations where the muscular fibre is less abundant, and hence a venous congestion results. Wright includes among his observations, reports of *post-mortem* appearances in animals dead from the effects of ergot, and in these he says of the condition of the lungs, that "they were much darker than usual, and their surface exhibited various ecchymoses, not the consequence of gravitation from position, but apparently resulting from stagnation of the blood during life." (Op. cit.) The heart, too, in these instances was generally found distended with blood. In support of this proposition, also, the fact is stated that in fatal cases of ergotism, "the parenchymatous organs were found congested." (Stillé—Op. cit. p. 588.)

Of the physical appearances depending on the anæmia of ergotism, perhaps the most obvious is the general pallor or lividity of surface which various authors have noticed as a constant symptom. This, of course, offers the most apparent external indication of the diminished supply of blood to the surface, and, as an almost necessary concomitant, a diminution of the temperature has been observed in many cases, both in man and in animals.

In the brain, the anæmia of ergotism gives rise to symptoms so exactly analogous with those of cerebral anæmia, when recognized as a pathological condition, that it will be interesting to enumerate and compare them, as reported in each case by different authors. Gubler notes the following among the signs of acute ergotism; depend-

ing, as he says, on "the sole property of ergot to convulse the contractile elements:" nausea and vomiting, numbness, lassitude, heaviness of the head, vertigo, dilatation of the pupils, delirium, stupor, sedation of the circulation" (Op. cit. p. 113). Assymptoms, on the other hand, of cerebral anæmia, whether depending on the general constitutional condition, or produced artificially by compression of the carotids, hæmorrhage or otherwise, Handfield Jones recognized "loss of consciousness, dilated pupil, vomiting, dizziness, swooning and coma, with depression of the circulation." (Functional Nervous Disorders, p. 48.) This comparison shows such an obvious similarity as to readily suggest the necessary inference.

The sedation to the circulation, which at first view might appear susceptible of an explanation on mechanical grounds, or perhaps by the direct action of ergot on the inorganic muscular elements of the heart, or indirectly by the temporary compromise of its nutrition, is fully accounted for by the anæmia of the brain, which seems to produce this derangement of the circulation as a constant symptom, analogous with that caused by sudden shock, excessive hæmorrhage and other such conditions.

Upon the spinal cord, also, the effects are no less decided, while the analogy, pointed out above in the case of the brain, is equally obvious. Handfield Jones (Op. cit. p. 61) records, as the result of ligation of the aorta in animals, a slowness of respiration and gradually developed, and, finally, complete paraplegia. Convulsions were the exception, thus establishing a distinction between anæmia of the cord and that of the brain. This condition of the cord is deemed by this author a rare affection, and only a single case is cited. In this, the patient was seized with numbness running down the legs, and with retention of urine. To this there soon succeeded a paralysis of the lower extremities, involving both motion and sensation. Consciousness was perfect. Under tonic treatment, this condition shortly yielded, and in a little more than a month the patient was well.

Among the effects of the cumulative action of spurred rye on animals, Wright found that one of the most constant was a weakness of the hinder extremities, soon developing into paralysis. This condition, taken in connection with the diminished respiration which has been repeatedly remarked, suggests at once a similarity with the functional state just noticed. It is true that in the human system the cumulative

influence of ergot has not been observed to produce these grave symptoms of impaired nervous power, but it would seem that an approximation to that state is found in the numbness and itching of the skin which have been recorded as symptoms of ergotism.

The power of ergot to directly stimulate, and to contract the muscular fibre of the intestines and of the trachea and bronchial tubes, is at best a question for further investigation. No special experiments appear to have been made in this direction. There are, however, a few detached phenomena which seem to afford some light in the matter; for example, Wright, in his numerous experiments, repeatedly observed in animals, dead from ergot, distinct contractions encircling the intestines like bands, while their general calibre was markedly diminished. The "abdominal pains and alvine evacuations" mentioned by Gubler as among the effects of ergotism, point also to the increased muscular action in the intestine, by which the normal vermicular motion is exaggerated. The dilatation of the pupils may be due both to the direct effect of the drug on the involuntary muscle which composes the curtain of the iris and to the anæmic condition of the brain, as remarked upon before. Again, the state called "goose-flesh," often seen in ergotism, may perhaps be attributed to the stimulation of the delicate involuntary muscles, the *arrectores pilorum*, which lie imbedded in the corium, causing a condition like that from the impression of cold.

The effect of ergot on the uterus was the influence which first procured for that agent a place in the *materia medica* as a remedial agent of the first order. Its power to originate uterine contractions, as well as to intensify those already commenced, is too well known and too generally recognized to need elaborate vindication.

The phenomena of this effect are well defined by Gubler as follows:—"The uterus being the seat of election of the action of ergot, if the organ is gravid, tonic contractions, more or less marked and prolonged, are induced, under the influence of which the viscus assumes a very decided hardness and a globular form, like the condition during the spontaneous pains of labor. These spasms, artificially produced, are like the intermittent normal contractions accompanied by painful sensations, known as uterine colic. They are sufficiently powerful to hasten the expulsion of the fetus. Besides pregnancy, and the hypertrophy of its contractile tissue, the

uterus feels the influence of ergot proportionally to the development of its special muscular apparatus. This effect is seen in the hypogastric pains and by the discharge of blood, as well as by the suspension of metrorrhagia." (Op. cit. p. 113.) The nature of this action is composite. If the uterus is in its normal, unimpregnated state, its tissue is composed of the unstriped muscle largely supplied with bloodvessels. This special anatomical structure is emphatically exaggerated when the organ is undergoing its peculiar functional changes in pregnancy; the muscular substance is then greatly hypertrophied, while the circulatory apparatus is proportionally augmented. Such a condition renders the uterus, which at any time attracts to itself the elective action of ergot, more readily susceptible to its influence, the special effect manifesting itself alike on the smooth fibres of the uterine walls, and on the smooth fibres of the contained bloodvessels, on identically the same principle.

A series of symptoms, which together characterize an epidemic affection almost unknown in this country, but common enough on the continent of Europe, still further illustrates the cumulative effects of ergot. From the time when, at the close of the eleventh century, Sigebert de Grenblour first recognized the cause of this disease and described its symptoms, until the present, ergotism has been identified as the legitimate consequence of the continued use of the diseased rye as an article of diet. The uniformly devastating effects of this ergotized diet have been repeatedly recorded; whole districts have been infected as by a pestilence, armies have been decimated, the sexes have suffered alike, and in every case the cause was attributed to the diseased rye. The symptoms of this peculiar, and, in general, fatal affection are so characteristic and so clearly exemplify the legitimate physiological effect when carried to its extreme degree, that we can do no better than to transcribe two cases illustrating the two recognized varieties of ergotism, the spasmodic and the gangrenous. "In 1841, a family of eight persons lived upon heavily ergotized rye-bread, the grain having been gathered during the preceding wet season. The chief symptoms consequent were these:—Malaise, anxiety, exhaustion, fainting, coldness of the whole body, a sharp, pricking pain and formication, numbness of the hands and afterwards of the arms, alternating with spasms so severe as to extort tears. The muscles of the lower extremities were affected in the same manner, and, in one

case, those of the right side of the face, and, subsequently, those of the abdomen were spasmodically contracted. About the sixth day, nausea, vomiting and diarrhoea took place, with severe pains in the bowels and bladder. At the fourteenth day, two of the children lay as if stupefied, or, if roused, raved wildly or complained of pain in the head and limbs. At the same time, a pruriginous eruption appeared on the skin. They died, on the twenty-first day, in violent convulsions. The other case is reported by Bonjean. Like the former, the family consisted of eight persons. Of these, four were not affected, two but slightly so, and of the other two, one perished and one lost his leg. All of them had lived on the same bread. In the fatal case, the symptoms were these:—pain in the groin, a dark spot on both calves, coldness and pain in the legs, followed by an eruption of vesicles, with violent itching, and, finally, gangrene of the lower third of the legs. The upper part of the legs was affected with humid gangrene. Both legs were amputated below the knee, with little loss of blood. No extension of the disease followed, but the patient died of pneumonia, which was probably metastatic. In the other child, but one leg was affected; its symptoms were the same as in the first case, but spontaneous separation of the limb took place at the knee, and recovery followed. (Stillé's Therapeutics, vol. ii. p. 589.)

So clearly allied is this train of symptoms with the phenomena of the action of ergot, experimentally demonstrated, that it is obviously but the exaggeration and culmination of those phenomena on the principle already stated—the power to contract the involuntary muscles. For example, the fatal gangrene which constitutes so important a feature, is but the necessary effect of the continued sedation to the circulation, in parts distant from the heart, and depends on the prolonged diminution of the calibre of the vessels. In this respect it resembles precisely the well recognized effects of cold, the compromise of the circulation resulting in a lesion of nutrition and a consequent death of the part, without inflammatory changes. So, again, the cramps, the convulsions, the coma, the formication, the abdominal symptoms and the coldness and numbness, illustrate in the most emphatic way the various phases which characterize the action of ergot on its proper underlying principle, and were there no other facts at hand, these phenomena would serve to demonstrate the theory that "however numerous and various these effects, they can,

nevertheless, be all referred to the fundamental action of ergot upon the nuclear fibres, and in general on the fibres or even the contractile granules of organic life." (Gubler.)

From this survey of the physiological action of ergot, one or two considerations must be evident almost at the outset. Upon the principle that this agent is a special stimulant of the involuntary muscular fibre, it may be properly asked why we do not observe, in its ordinary use, phenomena characteristic of its general constitutional effect; if its powers are so great to contract fibre in one part, why is its action limited or neutral in others equally well supplied with involuntary muscle; if the uterine and the vessels of the spinal cord are readily acted on, why do we fail to detect equivalent effects at the same time in the bladder, the intestines, the iris, the œsophagus? Without admitting that the action of spurred rye is so absolutely limited, or that all the involuntary muscle in every part fails to feel in some degree the effect in any case, it must be confessed that the action is elective in very considerable measure. It has been recognized from the earliest times in the history of ergot, that the uterus was especially sensitive to its impressions, and hence its traditional synonyms:—*mutterkorn*, *pulvis partum accelerans*, *pulvis parturificiens*. The reason of this partiality is found in the accepted dogma of elective affinity in medicinal agents—the special power of affecting certain parts or organs to the exclusion, partially or wholly, of others. Just as certain cathartics select, for their field of action, their own appropriate portions of the intestinal tract, to the exclusion of the rest; just as strychnia manifests its peculiar power through the spinal cord, leaving other portions of the nervous system; just as diuretics owe their special effects to their special attraction toward the renal apparatus in the process of elimination; so ergot exhibits its action by selecting its own proper field. The reason why, in epidemic ergotism, in the same season, and under similar conditions, different individuals are differently affected, one exhibiting all the symptoms of spasmodic ergotism, and another those of the gangrenous type, must be sought for in individual idiosyncrasy and aptitude for special tendencies.

The obvious analogy between the theoretical action of ergot and that of the class of drugs called astringents, would seem to indicate that the latter should include the former. Indeed, according to the theory

stated, there appears an almost absolute identity of action. But the difference lies in this. "Astringents," according to Headland, "act directly and especially on muscular fibre, causing it to contract, whether it be striped or voluntary, or of the unstriped and involuntary kind. This depends on their chemical power to coagulate albumen, and from this they derive their dynamical power over living tissues." But this power to coagulate albumen does not reside in ergot, nor does it appear to exert any influence over the voluntary muscular fibre. In these two important respects, then, ergot seems removed from the class of general astringents, while it may claim to be considered as a special astringent, whose powers are of a peculiar nature.

[To be continued.]

#### A CASE OF HERPES ZOSTER OPHTHALMICUS, IN A PATIENT 80 YEARS OF AGE, CAUSING FATAL PROSTRATION; WITH REMARKS.

By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon  
Mass. Char. Eye and Ear Infirmary, Boston, &c. &c.

(Concluded from page 319.)

SEVERAL cases have lately been reported where paralysis accompanied herpes zoster. Dr. F. B. Greenough, Boston Medical and Surgical Journal, p. 401, 1868; Dr. Albion Cobb, same Journal, p. 95, 1869; Mr. B. J. Vernon, *St. Bartholomew's Hospital Reports*, vol. iv., 1862, and Dr. John Duncan, Oct., 1868, *Journal of Cutaneous Medicine*. This has occurred too often to be treated as a mere coincidence, and must be taken in due consideration in the study of the pathology of this disease. Hutchinson's remark seems to grow more and more applicable, "that whoever succeeds in unravelling the mystery which at present surrounds it must at the same time make a discovery in physiology."

Dr. Edward Woakes, in the *Journal of Cutaneous Medicine* for October, 1867, published some remarks on the correlation of cutaneous exanthemata with neuralgia, analyzing Mr. Paget's observations, and those of our countrymen, Drs. Mitchell, Moorhouse and Keen, on wounded nerves. His theory, as applicable both to the traumatic and idiopathic forms of this disease, is—"that, owing to the suspension of the regulating power exercised mainly by the sympathetic nerves over a given artery, effusion takes place from its ultimate ramifications. These being distributed to the skin on the one hand, and to the texture of the

sensory nerves on the other, the effusion so caused produces the herpetic rash in the former, and pain from mechanical pressure in the latter." This theory, as explained in his article, is certainly a very plausible one, and best harmonizes with the results of observations. All theory, however, in reference to herpes zoster, whether traumatic or idiopathic, is at present perhaps premature, and any one founded on a few cases seen in the practice of a single individual, is most likely to be subsequently disproved. Herpes zoster still remains a nosological riddle.

In regard to the special form of *ophthalmic* herpes zoster, if we may draw conclusions from the above table of thirty-four and the other cases reported, we can say that it may affect the frontal branch alone, or the frontal with one or more of the others. It does not seem to affect the other branches *without* the frontal. The eye is not affected when the frontal alone is involved. The danger to this latter organ is very great, as it has at times been destroyed or useful vision taken from it. Mr. Hutchinson says:—"I have seen several cases in which the cornea, sclerotic and iris became involved in inflammation. As a rule, I think the eye does not inflame until the eruption is at its height or already beginning to decline. In one case, however, a single nodule of lymph near to the pupillary edge showed itself in the early stage, and without any ulceration of the cornea. More usually the ulceration of the cornea is extensive, and often it prevents a satisfactory inspection of the state of the iris. There is always great congestion, both of conjunctiva and sclerotic, and this congestion, as well as the corneal ulceration, is very slow in disappearance. The pupil, even when there is not much lymph visible, is always very sluggish, and in several cases I have found it impossible to make the iris act by atropine, even by strong solutions frequently repeated. I have never seen hypopyon in connection with this form of ophthalmia, nor does the other eye seem to suffer. According to my experience, herpes zoster frontalis is more frequent in the aged than in the young, and also more severe. The liability of the eye to suffer also appears to be much greater in the old." "When the disease has subsided, the eyeball is usually left somewhat anæsthetic, though perhaps at the same time liable to neuralgic irritations: In this it shares with the skin, ing with although perhaps very painful, is The numb as regards common sensation. After the stages the patients often com-

plain that the skin feels 'numb and stiff like parchment.'" Mr. Bowman says:—"It is not always possible to examine the eye accurately during the herpetic attack, owing to the swelling of the lids; but when this subsides, it is usually easy to ascertain what tissues have suffered. I have seen nothing like herpetic eruption on the conjunctival surface of the lids or globe. The conjunctiva may be too red, the eye may be watery and intolerant of light, and the peculiar pain of the affection may be experienced in, or referred to, the organ itself; but usually there is no primary disease, such as corneal or iritic inflammation, coincident with, or forming a part of the eruptive stage of the complaint. If these occur, they seem rather to follow after a short interval. Small softening or ulcerations of the cornea, rather marginal than central, and slight iritis, are the more common complications, but rather the former than the latter; and they have seemed to me to bear considerable resemblance to those following smallpox, both in their course and the treatment they demand."

I avoid further speculation on this form of the disease in our present knowledge of it. Mr. Hutchinson says:—"There can be little doubt that the local processes of inflammation in the skin and the eye are produced directly through the medium of the nerve, in this instance, of the ophthalmic division of the fifth (some or all its branches). At what part of the nervous system the irritation begins, however, we are quite in the dark. I can see no arguments in favor of the belief that it is produced by the vaso-motor rather than by the sensory trunks. It appears always to follow accurately the distribution of the latter." "This singling out of one particular nerve-branch might seem to imply that the irritation, whatever it is, attacks the nerve-trunks after their subdivision. It is possible that it may be brought to bear upon them through the medium of the vaso-motor ganglia. This conjecture is very different from the one which would attribute the whole production and localization of the disease to vaso-motor filaments. Other arguments might be held to support the conjecture that the irritation starts from the cerebral ganglia of origin for the nerve concerned." "I must beg to warn against hasty inference, from the fact that sometimes only one branch of the ophthalmic nerve, and sometimes all are affected; that it is therefore probable that the disease commences in the nerve-trunks after subdivision, rather than in the cerebral or ganglionic centres com-



mon to them all. Such an inference is surely most unfounded. The nerve tubules which are to be distributed, as the 'frontal nerve,' for instance, are just as distinct from those constituting the nasal branch, when they are bound up in one bundle and called collectively the 'ophthalmic nerve,' as they are subsequently, when divided. There can be little doubt that, whatever may be their mutual relations for convenience of transit, they are perfectly distinct from one another from beginning to end. It is therefore easily comprehensible that a source of irritation, beginning either in the Gasserian ganglion or in the mesocephale itself, may be restricted in its influence to one branch only."

Dr. M. Singer records a case of herpes zoster following all three branches of the fifth, and in which it was observed that the two senses of touch and taste in the tongue disappeared and reappeared in strict unison, thus giving strong corroboration to the idea that the lingual is a nerve of taste, (*Biennial Retrospect of Medicine.*)

Dr. P. Gerhardt says that the group of diseases in the course of which zoster facialis is frequently observed is distinguished by the frequency of the initial rigor, or the occurrence of an increase of temperature to 30° Réaumur (104° F.) even on the first day. Gerhardt remarks that this affection does not attack the trunk or limbs, but only the face, and thinks that the irritation must be caused by the following peculiarity of the fifth nerve. The branches of this nerve run through narrow, long canals, along with small arteries; these arteries contract in the initial rigor, but then dilate, and their abnormal size creates a pressure on the branches of the trigeminus and the sympathetic. The occasional result of the damage to the latter is the occurrence of a vesicular eruption on the skin. He thinks that when this has once occurred an accommodation takes place, in virtue of which a second attack of febrile dilatation of the vessels does not irritate the vaso-motor fibres so as to cause the eruption. (*Biennial Retrospect of Medicine.*)

As regards treatment, Mr. Hutchinson says:—"Whilst our pathology is so uncertain, we can allege nothing with confidence. I have always been in the habit of ordering quinine, and using any simple local application which may seem most appropriate to the stage of the eruption. Lead lotion at first, or free applications of oil, or, if the pain be very severe, of laudanum, are all useful." Mr. Bowman says:—"I wish I

could state anything very satisfactory as to the treatment of the after-pains, which are sometimes so severe as to make the patient weary of existence. In Case IV., subcutaneous division of the nerve was only undertaken after almost all other remedies, local and general, had failed. It certainly for a time took away all feeling from the region to which the frontal nerve is distributed, and when touched in this region the patient no longer experienced the pains which previously tormented him. But in a few weeks the sensibility had returned, and even at first the pains in the neighboring parts to which the remedy had not extended seemed such as to make the partial relief very little appreciated. It may be also that the morbid condition of the nerve on which the pain depended was not confined to the part peripheral of the point of section, and that the central portion continued the seat of pain. Perhaps if it had been possible to divide the nerve further back, the relief would have been greater."

"In Case VI., very marked relief did follow section of the nerve, and with clear evidence of the fact. When the frontal nerve was divided, the frontal pain was greatly lessened. When the external nasal branch was cut, pain was no longer referred to the skin of the nose, while the inner surface of the nostril continued to be the seat of distressing pain, and I could think of no way of dividing the inner branch entering the nostril far back through the ethmoid. The relief, so far as it extended, was in this case so permanent and considerable as constantly to elicit the patient's thanks. The result in this case would incline me to recommend the division of the nerve, a very harmless proceeding under chloroform, whenever the after-pains are severe and continuous in spite of time and other treatment."

In the case I have related, as I have above said, division of the frontal nerve would not have been of special service till pain had left the parts supplied by the other branches of the ophthalmic, namely, upper lid, side of nose and eye. This it did not do till after the fourth week of the disease, when any operative interference would not have been tolerated by the patient.

Dr. Crépinel reports that he has found great benefit in the treatment of neuralgia in herpes zoster from the local application of chloroform and oil (one part to five), some five or six times daily. The proportion of chloroform to be increased when the pain is very severe; the remedy to be applied as early as possible in the disease.

I will finish with the following quotation from the *British Medical Journal*, vol. i., 1866, p. 470, as it applies to two cases in Mr. Hutchinson's table and to the plate published by the Sydenham Society:—

"A few months ago, at a meeting of the Council of the New Sydenham Society, the new plates of the series of skin diseases were presented to the Council for approval. One of these plates, representing a specimen of herpes zoster of the head and face, excited a little amusement among some of the members. 'Who had ever seen the disease in such a part? Surely it was unnecessary to depict so rare and far-fetched a complaint.' Curiously enough, one of the Council, Dr. Markham, who had had his joke on the occasion, was himself last week pronounced, by his friend Dr. Stewart (another of the unbelieving ones), to be 'a splendid specimen of that very disease we were joking about a few months ago at the Council of the Sydenham Society.' Herpes zoster of the head and face is, however, no joke to the patient. A man need wish his worst enemy no worse week's or fourteen days' excitement than that of an attack by it. In the present case the disease was limited to the course of distribution of the left supra-orbital nerve, and showed, throughout, its distinctive nerve character. Five days before the eruption appeared there was constant neuralgia of the aforesaid nerve and hemicrania. Considerable itching and several hardish and painful subcutaneous elevations preceded the vesicular eruption. The eruption was markedly limited to the left side of the forehead and head and the root of the nose, and to the left upper eyelid."

I have given this somewhat lengthy compilation in regard to herpes zoster, and especially the ophthalmic form of it, partly in defence of my diagnosis of the case I record, but principally as it interested me in the two specialties I practise. I desired, also, to call the attention of the profession to it and prevent its being, as has no doubt occurred, mistaken for erysipelas. I regret my case could not be recorded in more detail; I think, however, it is sufficiently so to establish its identity. In reporting the case at the Suffolk District Medical Society, Boston, and the American Ophthalmological Society at Newport, I exhibited plates from Mr. Erasmus Wilson's series and portraits from Drs. Boeck and Danielssen, Prof. F. Hebra, the New Sydenham Society, and Baresprung and Hebra's Atlas, wood-cuts and photographs in the Ophthalmic Hospital Reports, and Reports of

the Charity Hospital of Berlin, and would refer to them. I append a list of the journal articles and monographs I have spoken of in the course of this paper.

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*On Long, Short, and Weak Sight, and their Treatment by the Scientific Use of Spectacles.* By J. SOELBERG WELLS, Professor of Ophthalmology in King's College, London, &c. Philadelphia: Lindsay and Blakiston. 1869.

This is a third and enlarged edition of a work first published several years since. It is in great measure comprehended in the larger work on diseases of the eye by the same author, already reviewed for this JOURNAL. Further comment is unnecessary, except perhaps an allusion to the exquisite typography of the book itself.

"I have already insisted," says Mr. Wells, "upon the necessity of the surgeon himself determining the number of the glass which the patient is to wear, and not entrusting this to the optician." This is the text on which the work before us is an extended comment, the proposition of which it is the demonstration. On no portion of the medical field is quackery more rampant or its results more apparent. Peddlers of

spectacles infest country towns; and city newspapers display unblushing advertisements of glasses warranted to suit any sight, and to last twenty-five or more years. Books like the present are the best means of staying the progress of such rascality, and modifying the credulity on which it feeds.

H. D.

## Medical and Surgical Journal.

BOSTON: THURSDAY, JUNE 10, 1869.

### RAPID CHANGE OF COLOR IN HUMAN HAIRS.\*

DR. BROWN-SÉQUARD, in the last number of his *Archives de Physiologie*, gives an account of a rapid change of color—from black to white—which took place in the hairs upon the face of the *savant* himself.

In the month of August, 1862, he began to notice the appearance of a few white hairs in the anterior portion of the beard covering the middle of both cheeks. The posterior portion had, already, for several years been sprinkled with gray, the anterior half remaining untouched. In this anterior portion, he, on rising one morning, found a few white hairs, which he extirpated. Two days after, in the midst of hairs which were black, or dark brown, in their entire length, with a few others which were white only near their roots, he found three hairs which were white in their entire length on the right cheek, and two on the left.

To make sure that he had not been mistaken, he followed up his observations on several occasions for six or seven weeks; and after each extirpation he saw black hairs become white throughout their entire length in the course of from two to five days. He remarks that it is scarcely necessary to say that, during the same period, a number of hairs began to whiten in the neighborhood of their roots.

Dr. Brown-Séquard was then in his ordinary state of health, and was not under any extraordinary mental influences. Thus, without any appreciable cause, he says,

than that which at a certain age makes the beard turn white, there took place in his case, a very rapid change of color, from black to white, in a considerable number of the hairs upon his face. As far as he could ascertain, this change occurred always in the night. He did not examine the whitened hairs with the microscope.

He concludes that this experience of his puts beyond a doubt the possibility of a very rapid transformation (probably in less than a night) of black hairs into white. He, however, considers that the statements on record of a sudden blanching of a considerable portion—greater or less—of the hair or beard do not rest on a basis of scientific authority.

IN one of last year's numbers of the *Archives de Physiologie*, we have been shown an article by Dr. Brown-Séquard on the subject of the *immediate arrest of convulsions of the lower limbs, by the irritation of certain sensitive nerves*. The Doctor had observed seven cases in which convulsions had been stopped by the means here indicated. The process consisted in simply flexing suddenly and with a good deal of force the great toe upon the foot. The first of his cases was a violent one. The cessation was prompt upon the application of the remedy, and lasted long enough for the patient to be dressed. This patient was seen in consultation by Nélaton and Trouseau, who witnessed the phenomenon. In some of the other cases the arrest of spasm was not so immediate or so complete; but in all seven there was at least considerable diminution of convulsive action, and that diminution was sufficiently prompt. Dr. Brown-Séquard makes some physiological reflections on these facts.

CONNECTICUT, May, 1869.

MR. EDITOR:—I send you an extract from the "*British Medical Journal*," "being the Journal of the British Medical Association," for publication in the BOSTON MEDICAL AND SURGICAL JOURNAL. It concerns the condition and position of our medical brethren in our Navy. I have recently been very intimate with two of them, very fine fellows, who feel that their state on board ship is little better than slavery. Doubtless you

\* *Poils* is the word used, meaning hair other than that which grows upon the scalp.

have seen the statements which they have recently put forth.\* One of the above to whom I have referred, and who is quite active in bringing the matter before Congress and the community, has just been displaced from a ship lying in our harbor on home duty, and sent to sea—a proceeding almost unknown in the Navy. But I have time only to say that the Surgeons of the Navy are anxious that the community should understand how much the service is likely to suffer from the withdrawal of the best talent in the Navy, and also to influence the minds of members of Congress, so that if the subject should come up again, they may be able to act understandingly. I am sorry Admiral Porter is said to be the prime mover in this injustice towards our profession.

SEXEX.

[From the British Medical Journal, April 24, 1869.]

"*The Naval Medical Service of the United States.*—From papers received by a member of our Association, we learn that there is urgent necessity for reform, in the Medical Department of the United States Navy. "*Corum non animus mutant, qui trans mare currunt.*" Combatant officers, all the world over, appear to be unduly jealous of the prerogative of *command*, and they repress the civilians associated with them, as a result of this unworthy feeling. It is evident that the matter is not viewed by them dispassionately, in consequence of the judgment being clouded by feeling. Usurpation of command on the part of civilian officers is impossible, and the commander knows and feels that he may hang any man, or officer, on board his ship at his own will and command, despite consequences, *for he possesses the power.* We should imagine that this reflection would be consolatory to the combatant class, and would enable them to repose majestically in the consciousness of power, without resorting to vexations and petty acts of restriction. The surgeons of the United States Navy are also dissatisfied, and, we think, justly so, with the treatment accorded to them by their Government; for, at the conclusion of the civil war, they were left unrewarded for their exertions (which were acknowledged to be valuable), whilst promotion and appointments were bestowed on the executive class. Patriotic feelings induce surgeons to serve their country during periods of war; but in time of peace there is disinclination for service, arising out of similar causes in both the American and British navies:—namely, neglect and re-

pression of the civil element of the service. As an illustration of this statement, it may be mentioned, that, in the year 1864, when the demand for medical men was at its height, "one hundred and thirty-two physicians declined appointments in the Medical Department of the Navy, alleging that they were willing to serve, as a matter of principle, or duty, during the war, but desired no *permanent* place in the navy." This is an unmistakable *pronunciamento* of the profession against the regulations and usages under which doctors are constrained to live, when employed in the sea-service; and, since at the present time there are fifty vacancies, notwithstanding ample opportunity of admission by means of an examining board in perpetual session, we may conclude that some radical change is necessary to maintain the efficiency of the United States Navy in time of peace.

"Farragut, like Nelson and other worthies of the British Navy, fully appreciates the claims of the surgeon to position and emolument, but inferior minds dread loss of dignity to themselves by the elevation of civilians. The surgeons ask for inspector-grades similar to those existing in European navies, especially as the rank of admiral has been introduced into the United States Navy; and they further ask that rank shall be substantive, and accompanied by privileges; always excepting *command*. It is a remarkable circumstance that the Navy suffers much more than the Army from a marinet spirit, which the executive officers term, *aristocratic*—we should rather say "*pseudo-aristocratic*." We wish our American brethren early and complete redress of their grievances; and we entertain no doubt of success, so long as they contend for it, by the weapons now in use by them—viz., discussion and congressional action. The American Medical Association has accepted the cause as their own, thus showing identity of feeling and of purpose with the British Medical Association, and the event cannot fail to be fortunate."

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY. (*Continued.*)—To the account we gave last week of the first day's proceedings, we add the following.

Many of the Fellows visited the City Hospital on Tuesday morning, and at 11 o'clock witnessed the following operations:

1. Iridectomy, Dr. Williams.
2. Amputation of arm, Dr. Ropes.
3. Paracentesis thoracis, Dr. Bowditch.
4. Pharyngeal polypus, Dr. Chacever.

\* We have already published them.—Ed.

5. Iridectomy, Dr. Williams.
6. Glandular tumor of neck, Dr. Ropes.
7. Nasal polypus, Dr. Cheever.
8. Epithelioma, Dr. Ropes.

*Massachusetts General Hospital.*—After making the surgical visit in the wards, the members of the Society proceeded to the operating theatre.

A submaxillary tumor was removed by Dr. H. J. Bigelow. It was closely adherent everywhere, and was attached by a pedicle to the submaxillary gland deep behind the lower jaw.

Lithotomy was performed by Dr. Hodges on a boy eight years old; the existence of the stone having been known three years, and having occasioned great suffering. The lateral method was selected. The stone was large for a child of this age, weighing six drachms.

An epithelial cancer, of considerable size, was removed from the angle of the lip by Dr. H. G. Clark.

A large congenital erectile tumor of the cheek, of the size of a Chinese orange, was operated upon by Dr. Bigelow. The integuments were dissected up in order to preserve them for future covering, and the vascular mass was constricted by ligatures passed through the part subcutaneously.

Dr. Algernon Coolidge exhibited a case of severe and recent injury of the shoulder, which had just been admitted. Dr. Coolidge made some interesting remarks on the importance of accurate diagnosis in cases of this nature, dwelling especially upon the importance of anaesthesia previous to examination. After enumerating the various lesions which might be mistaken for the one which had occurred, he demonstrated the prominent features of the injury in the present case, and the method usually adopted in the Massachusetts General Hospital for its treatment.

Dr. Bigelow exhibited a severe case of cleft palate successfully operated on. The fissure extended through the soft and bony palate, separating the median incisors. By stripping the soft tissues from the bony roof of the mouth, after the method of Langenbeck, he had been enabled to close the fissure completely. Silver sutures and a hard rubber shield had been employed to assist cicatrization. Dr. Bigelow also exhibited the peculiar instruments used in this operation, including the gag by which the operation is now performed under ether and in young children.

Dr. B. also presented the case of extrophy of the bladder on which he had operated before the Society at its last annual

meeting. The extrophied mucous membrane, four inches in diameter, was now wholly covered with integument taken from the neighboring abdominal walls, and the urine escaped only by a linear opening upon the pubes less than an inch in length. The patient expressed himself as immeasurably benefited by the operation.

We give the above operation reports in the order in which we received them.

The following report of the Second Day's Proceedings we compile in part from the *Advertiser* and *Transcript*; but chiefly from the notes of the anniversary chairman, and those of some of the speakers at the dinner.

The credentials of the following delegates from other societies were presented:—Dr. G. E. Bickett, of Augusta, Maine; Dr. Wm. Swazey, of the Maine Medical Society; Dr. J. C. Hutchinson and Dr. James L. Little, from the New York State Medical Society.

Dr. Kimball, of Lowell, exhibited an ovarian tumor which had been successfully excised a day or two previously from a young woman aged 31. The peculiarity of the tumor consisted in its containing a rudimentary lower jaw with rudimentary teeth. The lining of the tumor was covered with osseous scales, the whole weighing twenty-five pounds.

This led to an interesting discussion on the subject of ovarian fetation, in which Dr. Burnham of Lowell, Jackson of Boston, Storer of Boston, and Perkins of Newburyport, took part.

Dr. David W. Cheever, of Boston, read a paper on the "excision of the entire diaphysis and the lower epiphysis of the tibia from a girl of 13 years, for suppurative periostitis, followed by regeneration of the bone, and a useful limb." The child was introduced to the audience, and the limb shown. Dr. Burnham, of Lowell, and several other gentlemen, presented cases.

A motion was made that the First By-Law be amended. A discussion which ensued was ruled out of order by the President, who stated that the rules and regulations required that the motion be referred to the Councillors, to be reported on at the next Annual Meeting. We believe the motion was finally withdrawn. At all events, the hour for hearing the oration having arrived, the delivery of that discourse took precedence of all other business.

The subject of the Annual Address, which was written by Dr. Alfred Hitchcock, of Fitchburg, was "The Organic and Parallel Relations of some of the Truths and Errors

of Christianity and of Medical Science." Dr. Hitchcock being prevented from delivering the discourse, procured the services of Mr. L. B. Munroe—Professor of Vocal Gymnastics in the Boston Public Schools—who read it for him.

*The Dinner.*—Shortly after 2 o'clock the annual dinner was served in Music Hall, where plates were laid, by J. B. Smith, the caterer, for about six hundred persons. In addition to the tables in the body of the hall, other tables were also placed on the platform. Dr. J. Baxter Upham, the anniversary chairman, presided, and Mr. Eugene Thayer officiated as organist. Both before and after dinner the organ performance of Mr. Thayer and singing by a choir of gentlemen gave a most agreeable diversity to the proceedings.

After the Society had become seated, the Chairman, J. Baxter Upham, M.D., introduced the Chaplain, Dr. Lothrop, of Boston, who invoked the Divine blessing, and after an organ voluntary, the Association and its invited guests proceeded to satisfy the wants of the inner man. The musical programme executed during the dinner comprised a German chorale by Luther, a transcription from Moses in Egypt by Rossini, a *morceau* from William Tell, and variations on "God Save the King," arranged by the organist.

At the conclusion of the repast the chairman—Dr. J. B. Upham, of Boston, addressed the Society as follows:—

*Gentlemen, Fellows of the Massachusetts Medical Society:*—In the name of my associates on the Committee of Arrangements, I extend to you all the hand of brotherly affection and of welcome. I congratulate you upon the return of this anniversary under circumstances so favorable and so auspicious. I rejoice that we are permitted to gather once more, in such large numbers, around these tables of social fellowship and good cheer—in this noble hall, whose tutelar deity is the patron both of music and of medicine, consecrated alike to art, to letters and to science.

You have come up again from all parts of this ancient Commonwealth, to exchange friendly greetings—to note the progress of the profession in this and other lands—to compare views and opinions on the great questions now uppermost in our realm of science—to hail with joy any new light that may have been shed along the pathway of truth—to give and to receive encouragement and counsel for the future—to pay tribute to the genius and learning of the liv-

ing and keep alive the memory of the honored dead.

Ours has been aptly called the quiet profession. It shuns the noise and tumult and strife of every-day existence; and, as a natural consequence, mostly loses the laurels that reward the common heroes in the great battle of life. It is the old story, so truthfully and touchingly told by Dr. Holmes, in words which deserve to be written on the walls of every hospital and school of medicine in the land—

"Two armies on the trampled shores,  
Two marshalled hosts are seen:

\* \* \* \* \*  
One marches to the drum-beat's roll,  
The wide-mouthed clarion's bray;  
One moves in silence by the stream,  
Along its front no sabres shine,  
Its banner bears the single line,  
'Our duty is to save.'"

The medical history of the past year, so far as our connection with it is concerned, may be very briefly told. I am not aware that it has been signalized by any novel or remarkable event. No wide-spread epidemic or new and dreaded form of disease has disturbed it. No deaths of very prominent and distinguished associates have saddened it. No startling discovery in physiological or pathological or therapeutical science, of which in other years we have had our full share, has set its seal upon it. We have gone on in the quiet and even tenor of our way, and the old Society, now nearing the completion of its first century of existence, is daily and nightly fulfilling its accustomed tasks.

Beyond these few words of negative allusion, therefore, I can find no excuse for detaining you with any remarks of my own. Accept, once more, my congratulations and the assurances of a sincere and hearty welcome.

The salutatory address concluded, the Chairman proceeded with the festivities of the day by introducing the following sentiment:—

"The prudent physician," says the old proverb, "is the keeper of his own counsel, thinking much, speaking little." Pre-eminently, such is he whom I have the honor to announce as the President of the Massachusetts Medical Society; of whom it may be said, as was once said of one of the greatest and best of men, "His merits are only equalled by his modesty." Allow me to introduce Dr. Charles G. Putnam.

The President responded as follows:—

The ardor of our chairman's address, gentlemen, has made it impossible for me

to add, by even one spark, to the warmth of his welcome.

I shall advert for a few moments to the changes in the times, and to the contrast which naturally suggests itself, between the more recent and the earlier anniversaries of our society. Formerly we met to discuss By-laws, listen to the Annual Address, and then, after the hastiest "plate of soup," rushed to the stage-coach or the "one horse shay"—some to plough the sands of Cape Cod—some to scale the hills of Berkshire. Now, thanks to science, and to the facilities of locomotion, we can enjoy for a while the companionship of our Fellows, and reap the fruits of their industry and learning.

Similar changes are everywhere in progress. The usages of Western civilization are gaining favor in the East. Theological questions in Europe are subjected to the test of individual criticism. Civil and religious liberty is promulgated in Spain and Austria, and the rights of manhood, delicately and adroitly hinted at in Paris, are more widely than ever asserted in England. "The resurrection of nations," says Lecky, is the miracle of our age.

The face of nature is changed by the union of distant seas—the mountain is no longer a barrier, the railroad through Mont Cenis, now within a few months of completion, will restore to Italy the ancient glories of Brundisium. The telegraph has neutralized the far-reaching enterprise of the monopolist—it has regulated supply and demand in trade, and is soon likely to do our familiar errands—"riding on the curled clouds" or "treading the ooze of the salt deep" with Puck or Ariel. Nor should we fail to notice the last great work of civilization—the railroad achievement that is to revolutionize the course of trade, and make Chicago—thirty years ago a frontier settlement—the great tea dépôt for the world.

In our national administration we hail the dawn of peace and prosperity, and the manifest desire to make truth and justice the corner-stone of the government. Let us hope to see it maintained with the same honesty of purpose in which it has been inaugurated. The effort, though somewhat thwarted, has already inspired refreshing trust, and, if even measurably successful, will exert a healthy influence, not merely in the arena of politics and in one city only, but in every class of society and over our whole land.

Our own science partakes of the same progress. The various appliances of natu-

ral philosophy—the more accurate and extended clinical observations—the wonderful researches of Séquard and Bernard into the properties and functions of the nervous system—the relations especially of the cerebro-spinal and vaso-motor nerves, have taught us greater certainty and discrimination in the diagnosis and treatment of disease.

J. Stuart Mill relates the story of Lord Mansfield's advice to a man of practical good sense who, having been appointed governor of a colony, had to preside in its courts of justice without previous judicial practice or legal education. The advice was to give his decision boldly, for it was sure to be right, but not to venture on assigning reasons, for they would infallibly be wrong." Nevertheless, in Law, Medicine or other vocation, he will be the better man who, all other things equal, is able to give a reason for the faith that is in him. "The knowledge that is insufficient for prediction may be most valuable for guidance," but safely as we may have been guided by observation and experience it is most desirable to ascertain the general principles applicable to our subject. In this view the recent application of Animal Chemistry is especially interesting, as it sustains, by its teachings, the practice learned from clinical experience.

It is most gratifying to be assured that not only have the pains been mitigated, but that the term of life has been extended by the art of Medicine. For instance, in his record of forty years' experience, Dr. J. C. B. Williams, of London, states that "the average duration of the life of consumptives has been at least quadrupled." In milder forms of consumption, under careful treatment, life may be prolonged for many years in comfort and usefulness, and in not very few, the disease may be permanently arrested."

Thus, directly or indirectly, by means of the light from so many sources, will general truths be discovered and a certainty attained, as absolute as the complexity and ever-varying conditions of the living body will permit. It remains for some one to collect and methodize these truths, and construct a science that will command the increased respect and subserve the best interests of the community. We would act our part in the cause of humanity with no exclusive system to maintain, no theoretical prejudice to warp the judgment, but with minds open to conviction to truth from every source.

In common with other avocations, the

practice of medicine has its share of annoyance from conceits, jests, and criticism. "The love of singularity," says Lecky, "the ambition to be thought intellectually superior to others"—these and countless other influences, all determine conclusions. As Meg Dods remarked of Lady Penelope Penfeather, "she had fallen ill as nae ither body had fallen ill, and sae she was to be cured as naeboddy was ever cured—whilk was nae mair than reasonable." So is it with Theology. One of the most profound and eloquent divines of the day, while urging the necessity of instruction in the fundamental principles of religion, goes on to say that "whenever unauthorized or crude novelties are broached under the name of religion, a full proportion of educated men and women, and of the so-called higher classes, are carried away by the folly."

To some of us the jests of Molière may be impertinent, and serious disparaging criticism is often undeserved, but there are cases, happily becoming less common, that justify the severest reprobation—cases in which polypharmacy is coupled with obtuseness, impenetrable as the shield of Ajax to any thrust short of the supernatural. Inasmuch as the truth we seek will be established by the conflict of opinion, we can tolerate—nay, more—we may be grateful for the satire of the playwright, the scepticism of the philosopher or the brilliant sallies of the poet.

It is not for us to teach ethics, nor is it worth while to array argument against a mere fabric of emotion—remembering the apothegm of Sydney Smith, that "what has not been reasoned *in*, cannot be reasoned *out*." It is our avocation to teach the means by which disease may be avoided, suffering lessened and life prolonged, and we may with reason congratulate ourselves on the success with which these ends have been attained. But self-gratulation on our present and on our past, can be but unsatisfactory, unless our future is made still more worthy of gratulation. It is our responsibilities that have given us the influential position that we hold, and if well met, they will raise that position still higher. Upon the younger men, especially, this task will rest. The pursuits of science—the courts of law—the chamber of the sick—if need be, the battle-field—call upon them for every noble quality that man or woman should possess. Availing themselves of all modern improvements, may they by every good work perpetuate the usefulness and honor of the Society, and when they recall the grand lights of wisdom and good-

ness that have for ages shone along the path of Medical Science, let the sanguine anticipations of the future be tempered with thoughtful reverence for the past.

(To be continued.)

THE HOMŒOPATHIC SALUTATORY.—Whatever may be the other merits of Dr. David Thayer's speech—reported in Tuesday's *Transcript*—he is singularly unfortunate in his personalities. He refers to a "certain teacher in a Medical College, who once made his public boast that he never had but one patient in his life, and that one died"; and identifies the gentleman referred to by a quotation from one of his printed lectures. We have taken pains to inquire into the accuracy of this statement, and find that nothing of the kind ever was or could have been said by the gentleman in question. He was physician to one of the most crowded districts of the Boston Dispensary for nearly a year; one of the physicians to the Massachusetts General Hospital for three years; and, engaged in private practice, was very often called in consultation during a period of more than ten years. There is, therefore, no meaning whatever in attributing such words to him.

It is a pity that Dr. Thayer could find nothing better to entertain the Homœopathic strangers with than such an absurd story about one of his fellow citizens.

From the Report of the City Registrar of Boston for the year 1868, we take the following statements:—"The number of births in Boston (embracing the late city of Roxbury), in the year 1868, was 7,102—3,590 males and 3,512 females, an increase of 265 over the number born the preceding year. The increase in the city of Boston was only 63, while that in the Boston Highlands was 202. The result in the newly acquired territory—where the gain is 2.14 per cent. compared with the births there in 1867—has a more agreeable aspect than is seen in Boston, where the increase is only a trifle more than one per cent.

"The population of the united cities of Boston and Roxbury cannot be far from 240,000. It follows, therefore, that the births in 1868 are in the ratio of one birth to every 33.79 persons living. Although this birth-rate is far below what it should be, and lower than it is in any European nation, with the exception of France and Belgium, it is, however, more favorable than was indicated by the rates of the last



fifteen or eighteen years; and induces the hope, at least, that the present year will not contrast unfavorably with the past.

The above statement shows what has been added to the living population; but, in estimating what the natural increase would be, but for certain causes that some might consider providential, perhaps the number of still-births should be taken into account. The number of still-births in 1868 was 482, which, added to those born alive, make 7,584—or one birth to every 31.64 persons living. But, as these cases *add* nothing to the population, nor aid in swelling the mortality, they are, therefore, very properly omitted in the consideration of both branches of the subject, and are classed by themselves.

"When it is remembered that in 1851 there was one birth in Boston to every twenty-six persons living, the present birth-rate (one to 33.79) will not fail to attract the notice of all who are interested in vital statistics, and awaken something more than curiosity. Whether prudential motives, or something worse, or both together, lie at the root of the matter, the disagreeable fact remains, and challenges serious consideration. Apart from the medical journals of the country, this subject seems to receive little notice; and even in them the discussions are of a spasmodic character, and gradually taper off into scientific disputations, which neither cure the evil, nor point to a remedy."

"The number of deaths in Boston (including the Highland district) during 1868 was 5,519—males, 2,861; females, 2,658.

"The following statement of the deaths in Boston, New York and Philadelphia, will show how the mortality in the first-named place compares with that of the last two. The reports of the deaths in New York and Philadelphia are not liable to the same objections that exist against the returns of births and marriages. As every interment requires a permit for removal, the mortality in each place is undoubtedly correctly stated:—

"Boston, 1 death to 43.48. New York, 1 to 44.19. Philadelphia, 1 to 59.74.

"New York has long borne the unenviable reputation of being little less than a plague spot. Those who have been accustomed so to regard it, will be somewhat surprised to learn, that, notwithstanding its filth, and the free-and-easy way in which public matters are conducted, its bill of mortality has a more agreeable appearance than that of Boston; while Philadelphia outstrips both in an extraordinary degree."

In the introduction to the Thirteenth Annual Report of the City Registrar (Edwin M. Snow, M.D.) of Providence, R. I., we find this statement:—

"The number of births in Providence, during the year, was 1,624; of marriages, 855; of deaths, 960. As compared with the previous year, the number of births was 8 *less*; of marriages, 43 *more*; of deaths, 76 *less*.

"Estimating the population of Providence, for the middle of the year 1867, at 57,000, which is a low estimate, the proportions to population, for the same year, were one birth in 35.1; one person married in 33.3; and one death in 59.4.\*

"When we consider that the returns of births, marriages and deaths in Providence are almost absolutely complete, the above proportions are more favorable to vital prosperity than those of any other American city of equal, or of greater size. They are, in fact, more favorable than those of our own city, in any previous year in the history of registration."

From the Third Annual Report of the Board of Trustees of the General Hospital for the Insane, of the State of Connecticut, we take the following:—

"There have been already received into the hospital, of all classes and both sexes, two hundred and sixty-eight (268) patients, of whom two hundred and nine (209) remain. Of these, one hundred and seven (107) are males, and one hundred and two (102) are females. \* \* \* Since the last annual meeting of the Board of Trustees, April 15th, 1869, the number in the hospital is 226, and there are on file and waiting for admission, sixteen applications. \* \* \* In all hospitals for the insane it is the practice to group patients of certain morbid propensities. It is the result of experience that they exert a salutary check on each other. Since the time that the northern wing was opened on the first of March, the female patients have arrived in large numbers daily, and it was impracticable to have immediate knowledge of each particular case."

We desire to call attention to a notice in our advertising columns, that, in future, diseases of the skin presenting themselves among the out-patients of the Massachusetts General Hospital, will be treated, specially, by Dr. James C. White.

\* Vide "Philadelphia" in our extracts from Boston City Registrar's Report.—Ed.

## Medical Miscellany.

EDWIN M. SNOW, M.D., Superintendent of Health in the city of Providence, R. I., says, in his Report on Smallpox:—"During the fourteen years, nearly, July, 1855, to April, 1869, ten thousand four hundred and sixty-four (10,464) persons have been vaccinated in my office. Very many more, of course, have been vaccinated, in the same time, by other physicians in the city.

"During the same fourteen years, I have myself given certificates of vaccination to sixteen thousand three hundred and thirty-two (16,332) children to enter the public schools. Probably nine tenths of these certificates were given by me, solely from the evidence furnished by the vaccination scar, and because I had full faith in the protection furnished by vaccination against the smallpox. Now note the result!

"During these same fourteen years I have known of nearly every case of smallpox in Providence, and have visited the greater portion of them myself, and I have never, during this time, seen or heard of a single case of smallpox in any scholar in the public schools, who received a vaccination certificate. These facts seem certainly to prove that vaccination has not lost its protective power.

"The reasons why smallpox has been so prevalent in California, and in some of our midland cities, during the past year, are perfectly well understood. They are not because vaccination has lost any protective power: but because vaccination has been neglected, or imperfectly applied. For the same reasons, smallpox is quite prevalent in New York city at the present time, and for the same reasons, we frequently have the disease, though to a much less extent, in this city."

PENNSYLVANIA STATE MEDICAL SOCIETY.—*Erie, June 9, 1869.* The annual meeting of the Pennsylvania State Medical Society will be held in the Court House, commencing June 9th, at 4 o'clock, P.M. Entertainments and receptions:—Wednesday evening, reception by Capt. Jonett, U.S.N., on board U.S.S. Michigan, at 8 o'clock. Thursday evening, banquet at the Reed House, at 8 o'clock. Friday, 11 o'clock, A.M., excursion on Lake Erie, in steam and pleasure yachts, and sail boats, and collation at Crystal Point at 4 o'clock, P.M. J. L. Stewart, M.D., Chairman Com. Arrangements, Erie County Society. C. Brandes, M.D., Chairman Reception Committee, Erie County Society. George C. Bennett, M.D., Chairman Com. Arrangements, State Society.

The above is a copy of a programme which has been sent us. What is more—the Committee of Arrangements had the kindness to send us an invitation to the festivities. For this courtesy we present our profound acknowledgments. Nothing but inability to leave home prevents our acceptance.

MASSACHUSETTS MEDICAL SOCIETY'S PRIZE FOR VENTILATING SICK-ROOMS. *Mr. Editor,*—The *N. Y. Medical Gazette* omitted one essential to the final success of his way of escape from the

closeness of the sick-room—viz., to let the patient have "the gates ajar," or "the gates wide open!"

The Editor of the *N. Y. Medical Gazette* may send the prize-money (when he gets it) to this office, for  
"Nuss."

PIN-WORMS AND THEIR HOMOEOPATHIC TREATMENT. *Mr. Editor,*—Dr. Buckingham wishes to suggest to the Editor of the *New England Medical Gazette*, that, if he (the Editor) will re-publish the article with the above title, which so offends the mock delicacy of that gentleman and his correspondent Vindex, it will be an accommodation to Dr. B., inasmuch as it will stop the numerous calls upon Dr. B. for the article. He regrets exceedingly that the worms have so troubled the Editor of the *Gazette* that he continues to scratch for two months after the application.

THE CASE OF SAW-WOUND OF THE SKULL.—We have received the May number of the *Pacific Medical and Surgical Journal*, containing an account of the case of recovery from a saw-wound of the skull, which we referred to a short time ago. We shall copy as soon as we can find room for it.

PIG'S milk is extremely rich, containing, as it does, nearly 50 per cent. more nutritive matter than is found in that of the cow. It is not unlikely that in certain forms of disease, where a milk diet is prescribed, the use of so concentrated a liquid food might prove serviceable.—*Dublin Med. Press and Circular.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Review of Surgical Case—Review of Holmes's Treatise on Diseases of Infancy, &c.—Congenital Cataract simulating Myopia—Insensibility to Pain from Mental Causes.

ERRATUM.—In our last issue, page 327, 2d column, line 25 from top, for "acid wine" read *acid urine*.

DEATHS IN BOSTON for the week ending Saturday noon, June 5, 85. Males, 36—Females, 49.—Abscess, 1—accident, 3—apoplexy, 1—inflammation of the bowels, 2—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 4—cancer, 1—consumption, 15—debility, 2—diphtheria, 1—dropsy of the brain, 2—drowned, 1—erysipelas, 2—scarlet fever, 5—typhoid fever, 1—hemorrhage, 1—disease of the heart, 2—insanity, 1—disease of the kidneys, 2—inflammation of the lungs, 5—marasmus, 1—old age, 6—paralysis, 3—peritonitis, 1—pleurisy, 2—premature birth, 1—puerperal disease, 3—pyæmia, 1—tumor, 1—unknown, 9—whooping cough, 1.

Under 5 years of age, 19—between 5 and 20 years, 12—between 20 and 40 years, 20—between 40 and 60 years, 19—above 60 years, 15. Born in the United States, 55—Ireland, 20—other places, 10.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, JUNE 17, 1869.

[Vol. III.—No. 20.]

## Original Communications.

### MANIA TRANSITORIA.

By EDWARD JARVIS, M.D., of Dorchester.

(Concluded from page 337.)

#### EXCESS OF DESTRUCTIVENESS IN THE INSANE.

AN ordinary sane criminal, having a definite purpose, accomplishes that, and is then satisfied. If he intends to kill for revenge, for passion, or for robbery, or to prevent detection, he simply extinguishes life, and then leaves his victim. His destructive force and instruments are only used as means for an ulterior purpose, and when that is effected they cease to act, and the propensity is satisfied.

The insane homicide often uses his destructiveness as an end. He has no other purpose than to destroy. He is not satisfied with merely killing. He goes beyond. Dr. Ray says, "The criminal never sheds more blood than is necessary for the attainment of his object. The homicidal monomaniac often sacrifices all within reach of his murderous propensity."\*

A sane murderer would be satisfied with cutting the throat of his victim, or with one or two stabs in the region of the heart, or one or two blows on the head with a heavy instrument.

Tuke relates the case of a woman who cut off the head of her child with a razor, and of a man who cut off the head of his companion with the same kind of instrument.†

A few years ago, an insane man called at a house in Roxbury, on some errand. He was left alone in the parlor for a few minutes with a little child; when the mother returned, she found that the maniac had severed the child's head from the body.

Henrietta Conrier not only severed the head of the child left in her charge, but threw it out of the window into the public street.‡ Castelnau gives account of a wo-

man who cut off the head of a child with a pocket-knife, and moreover stabbed it in the head, back, abdomen, and legs. He adds, that the great number of wounds in this case was held by the distinguished psychological physicians (*medicin legists*) as a characteristic symptom of insanity.\*

Esquirol states the case of a woman who destroyed her child, by inflicting twenty-one stabs with scissors, and then threw the body into the vault of a privy.†

Dr. Woodward gives the case of a homicide by a maniac, wherein the body was found "horribly mangled; one side of the head beat in, and both arms and legs broken."‡ Dr. Bell related a case that had come under his charge. A young man struck his father repeated blows on the head with a pitchfork, and killed him.

The teamster before mentioned, 1st, abused a woman; 2d, struck another woman several blows with the hatchet; 3d, split open the head of a boy; 4th, buried the hatchet in the skull of a man, and spilled his brain on the ground, and then struck him many more blows; 5th, attacked two Jews; 6th, attacked a peasant whom he met successively in his walk on the road.

#### HEREDITARY PREDISPOSITION TO INSANITY.

The question of hereditary descent of diseases, or rather of the tendency to or susceptibility of disease from parents to children, through successive generations, is too well settled to require any further proof or argument. It is only desirable to refer to it in this connection, by way of explanation of the class of transient mental disturbances now and here under consideration.

A considerable proportion of those who have suddenly appeared to be insane, were of unsound cerebral constitution by inheritance, their parents or ancestors having been insane. Tuke, referring to this class of transient cases, says, "An inquiry into the patient's history, will generally detect a change in character; this, however, obvi-

\* *Medical Jurisprudence of Insanity*, p. 231.

† Bucknill and Tuke, *Insanity*, 201.

‡ Esquirol, i. 231.

\* *Ann. Hyg.*, xlv. 439.

† *Malad. Ment.*

‡ *Worcester Hospital Report*, x. 87.

ously cannot be looked for in cases where mental disorder can be traced back into infancy, or where the intellectual and moral defects are congenital."\* Again he adds, "In some persons there is rather a congenital proclivity to disease than the actual disease itself, and in these, a circumstance which, in persons without that proclivity, would produce no result, will call into action abnormal, that is to say, truly diseased, mental manifestations, although they may be only functional and subside when the exciting cause is removed."†

Devergie says, "If we examine the ancestral history of the families on the paternal or the maternal side, of these transitory maniacs, it is not rare, that one or even many members of the family have been insane for longer or shorter periods." He quotes the case of one of these patients who had committed homicide in a transitory paroxysm, "in whose family one maternal great uncle died insane; one paternal aunt killed herself, and another relative on the mother's side was known to have been troubled with eccentricities (*bizarres idées*) all her life."‡

Castelneau, describing one who, in a momentary paroxysm of mania, had killed another, said, "that her mother suffered from grave disease of the cerebro-spinal system, and had hemiplegia previous to this daughter's birth. Her grandfather was insane, and her brothers were strongly impressed with the character of her ancestors."§ Of another he says the grandmother and great-grandmother were insane, and the father considered by the neighbors as not sane.||

The young man in France, who in a sudden paroxysm shot his mother-in-law, inherited his insane proclivity through both of his parents.¶

Tuke, in the part which he contributed to the admirable conjoined work of Bucknill and Tuke on *Insanity*, quotes\*\* many cases of impulsive and homicidal mania from Henke, Esquirol, Marc, Metzer, Georget, Ray, Otto, *Annales Medico-Psychologiques*, *Gazette des Tribunaux*, *Medico-Chirurgical Review*, and other journals. Most of these are represented as sudden and transitory. He admits these, with all their elements as they are originally described, outbreaks of short duration, without preceding or succeeding manifest insanity. He supposes that, although the single paroxysm was the

only apparent mental disturbance, the cerebral constitution was not previously completely sound; that it was either originally imperfect by inherited predisposition to insanity from insane parents and ancestors, or that it had become impaired by indulgences, eccentricities, &c.; and that in either case the vitiation had not been sufficiently great or manifest to be recognized by the patients themselves or perceived by others, yet were sufficient to prepare the ground for the development of insanity, whenever a suitable exciting cause might present itself.\*

If we inquire into the mental condition of the paternal and maternal ancestors of those thus accused of crime in sudden paroxysms of mania, "it is not rare to find one or more suicides, or who have suffered from insanity for a longer or shorter period."†

#### EFFECT OF EXTERNAL DISTURBING CAUSES.

The mental as well as the physical functions are susceptible of sudden disturbances and morbid changes. Generally they come from within; sometimes they come from without. Most of the sudden outbreaks of mania are the evolution or culmination of unseen and unrecognized morbid processes; some are the result of internal causes, which human philosophy has not yet been able to explain; and some are produced by outward influences that suddenly act upon the cerebral organism, and at once disturb the functions of the brain. One is thrown out of a carriage; no physical injury is seen, yet the brain is disturbed; the shock overcomes its balance of functional action and the mind is at once deranged. A horse runs away with a chaise, and puts the passengers in great excitement and alarm, and perhaps in real danger. Nevertheless, the

\* Bucknill, in his *Essay on Criminal Lunacy*, p. 38, speaks of "those in whom the impulse is sudden, instantaneous, unreflected on, stronger than the will; the murder is commonly committed without interest or motive, and often upon the most loved objects of the affections." And adds, "The existence of this class admits of grave doubt." Bucknill does not doubt the facts, as they are presented and described, of sudden outbreak and short continuance; but he says, "It is probable that the cases of insanity which have been placed under this head, were less recent and sudden than they were supposed to be. The earlier stages of diseased feeling had been unobserved by others and unacknowledged by the patient." This essay was written in 1854. It does not mention hereditary taint among the cerebral imperfections predisposing to these sudden maniacal attacks. But in the work which he, in conjunction with Tuke, published four years later, the hereditary predisposition is mentioned (page 186), in this connection. The later work further adds, beside the majority of cases in which the precursory "stages of diseased" and "congenital proclivity," there are left "a considerable number of cases in which there is a blind, motiveless, unreasoning impulse to kill." Bucknill and Tuke on *Insanity*, p. 201.

† Devergie, *Ann. Hyg. et Med. Leg.* xi. 2d Ser. 409.

\* Bucknill and Tuke *On Insanity*, 201.

† *Ibid.*, p. 185.

‡ *Ann. Hyg. et Leg. Med.* xi. 2d Ser. 412.

§ *Ann. Hyg.* xlv. 412.

¶ Bucknill and Tuke, 195.

\*\* *Ibid.*, 191.

animal is arrested; the passengers are bodily safe, but the fright has overpowered the senses of one; she is confused, bewildered, insane.

Many writers on insanity and many hospital superintendents include *fright* among the causes of mental disorder. Esquirol speaks of it as a common cause, and says, that it produced forty-six out of twelve hundred and eighteen admitted at the Charenton and Salpêtrière hospitals under his charge.\* Dr. Choate reports seventeen cases from fright among three thousand three hundred and ninety patients received at his hospital in Taunton in fifteen years.† The Worcester Hospital reports forty-five in thirty-six years.‡ The Hartford reports twenty-one among four thousand eight hundred and ninety-eight patients.§ The State Hospital of Utica, N. Y., reports forty-seven cases of fright in nineteen years of its operations.|| Most hospitals present a similar history. The same is found in English and Scotch hospital reports.

Females are somewhat more susceptible of mental disturbance from this sudden disturbing cause than males, yet the records of lunatic hospitals do not present a very great difference between the sexes, in this respect. Of the forty-five cases admitted at Worcester from this cause, twenty-one were men and twenty-four were women. Dr. Choate reports six men and eleven women received at Taunton from this cause. The nineteen American hospitals, which report the causes separately for each sex, received one hundred and thirty-one males and one hundred and eighty-three females who were made insane by fright, and twenty-six British and Irish asylums report one hundred and fifty-five male and three hundred and fifty-three female patients whose insanity was due to this sudden disturbing influence. Some hospitals report cases of insanity produced by other outward influences that speedily overpower the brain; shock, sunstroke, firing cannon, excitement of religious and political meetings.

Fright is an absorbing emotion quickly following some appalling event or impression on the mind and feelings. Shock comes as suddenly and is as rapid in its effects. The consequences of the firing of cannon and sunstroke belong to the same category. These outward influences fall at once on the brain and at once disturb its functional operations, and the sufferer is immediately unbalanced and disordered in mind.

Esquirol mentions a woman who was

made a maniac in a moment by a thunder-clap.\* Take gives fright as one of the moral causes of insanity.† Bucknill, in his Essay on Criminal Lunacy, refers to mental shock of grief or disappointment as cause of mental disease.‡

Castelnau quotes Bellard, who speaks of those that instantaneously lose their reason from the effect of a great grief, great surprise or other cause of this kind.§ Pinel says, that some persons of extreme sensibility may, by some keen and sudden affection, be so intensely moved as to suspend or even destroy all moral power. An excessive joy or fright produces this inexplicable phenomenon, and hence, says Castelnau, even dementia may be suddenly produced.|| Castelnau gives the instance of an inventor of an improved cannon, which met the approbation of the French Government. He was struck senseless by reading the official letter of commendation, and was sent at once to the Bicêtre in a state of dementia.¶

Bucknill says, "The delusions of the insane come on after some physical or moral shock, and often present strange contrasts to the previous habits of thought or have no relation thereto."\*\*\*

Those who have the care of the insane always hold in mind the great sensitiveness of their patients and their susceptibility of sudden excitement and outbreak. With this fear, they keep their patients from disturbing causes arising from persons with them, or circumstances that surround them. They endeavor to keep them under the most calming and soothing influence. They allow none but the most discreet, gentle, and self-disciplined to have the care of or approach them. All the officers, attendants and companions are selected with this view.

A superintendent of an asylum once told me that, a few weeks previously, a ward of ordinarily very quiet, peaceable patients, was suddenly thrown into excitement, with paroxysms of fury and contention, by the introduction of a new attendant, who was indiscreet, hasty, and irritating; but the storm subsided by the second change, and the substitution of a more skilful attendant.

In August, 1843, I was sitting at a window of the Worcester Hospital with Dr. Woodward. He called my attention to a number of men working in the field near by, to their quietness and order. He said "They were patients under one attendant;

\* *Malad. Ment.* i. p. 85. + Bucknill and Tuke, p. 289.

† Page 19.

‡ *Ann. Hyg. et Med. Leg.* xlv. p. 210.

§ *Ibid.*, p. 227.

|| *Ibid.*, p. 238.

¶ *Criminal Lunacy*, 35.

\* *Malad. Ment.* i. pp. 62, 64. + 15th Rep. p. 30.  
‡ 36th Rep. p. 16. § 44th Rep. p. 16. || Reports.

two of them were homicides. Each of these had killed a friend, in a sudden outbreak of mania, when they were supposed to be sane. And now they were working as calmly and apparently as safely as any sane farmers." I asked him if there was no danger now. He said, "No, not as we manage them. We select for their attendants, men who are amiable, self-chastened and respectful, who understand the liabilities of these patients, and know how to humor their wayward caprices, and are willing to do so. But if we should do otherwise, and put these susceptible patients under the management of indiscreet or passionate men, they might be suddenly provoked, and in a moment strike down their guardian, or any one near them, with their hoe or spade."

"Some time last year a patient was at work in the field, hoeing corn. His attendant directed him to vary his labor in some way. In a moment he raised his hoe and struck him over the head."\*

Sunstroke is a common cause of sudden cerebral and mental disturbance. Poderé says, "Temporary delirium is caused by the action of the sun on the bare head, and by excessive cold."† Hospital reports give abundant evidence of a speedy change from sanity to lunacy produced by this course. Nineteen cases from sunstroke were received at Worcester in thirty-six years, and twenty-four at Taunton in fifteen years.‡

#### THE FUNCTIONS OF OTHER ORGANS SOMETIMES SUDDENLY DISTURBED.

The functional operations of other organs, as well as those of the brain, are sometimes suddenly disturbed or even suspended, and disease may supervene in them, rapidly, almost instantaneously. Persons subject to rheumatism, and especially those who inherit it from parents, are especially liable to the sudden appearance of their malady. In two persons, now and for many years under my observation, it sometimes comes with the sensation of a blow from a club or a lancet. This may be from exposure to cold, or from exertion, but very commonly from no known cause. The attack usually leaves a painful soreness, and difficulty of motion for a few hours or days, and gradually fades away. Sometimes the pain and weakness last but a moment, and sometimes, after hours or days continuance, it suddenly disappears.

The Report of the health of Towns Com-

mission states, that when, on one occasion, the trap of a very foul sewer in London was suddenly opened, there issued from it a stream of gas of intense oppressiveness, and two men, standing over it, inhaled it, and were at once struck down with typhus fever. When epidemic cholera pervades the community, some of its attacks are as sudden. Digestion is sometimes suddenly arrested by the presence of food which is unsuitable for the stomach. It is sometimes arrested by sudden mental shock or alarm.

Disturbances of the physical system sometimes suddenly disappear. A patient had for six weeks neuralgia of intense severity; after trials of manifold remedies without apparent effect, at length the pain ceased at once, and left the sufferer entirely free, yet weak.

After reading the charge of the learned Chief Justice, as delivered, and the testimony of the experts with the constructors, the reader will judge of the temper and fairness of the subjoined article, which is taken from the issue of the *Boston Transcript* of Dec. 12, 1868. It is difficult to decide whether it is more an attack upon the impartial Judge, or the learned and conscientious expert.

*Medical Experts in Courts of Justice* hold a relation to the courts and the jury, to the accused and to the community, that is of the greatest importance and responsibility. Following their expressed opinions, courts and juries may be led into errors, the accused may be wrongfully condemned or acquitted, as the case may be, or the community may be deprived of an innocent member, on the one hand, or have thrown upon it the most guilty criminal on the other. Besides, if the conviction be entertained that their tendency is toward the criminal, it weakens the force of the law, inasmuch as it inspires a hope, if it does not give actual assurance, that its severity will be mitigated by the aid of some over-sympathetic humanitarian, or friendly, and it may be well paid, medical man.

That medical men, rather than medical sciences, have suffered in the opinion of the courts from faultiness in the above direction, is evident from the bold, decisive and pointed words of Chief Justice Chapman in his charge to the jury in the case of Andrews at Plymouth, recently, when he said: "The opinions of experts are not so valued as in other days. Many experts can be hired for the occasion. You must judge yourselves of the evidence offered you."

\* Dr. Woodward, x. Rep. 71.

† *Traité du Délire*, i. 425.

‡ Annual Reports, 1868.

Surely no plainer words could have fallen from the court, and a severer thrust than it has not been made at the medical profession in many a day; and if their pride can be touched, and their sense of honor stimulated, it would seem as though the exciting cause for such emotions and efforts had now been presented.

#### THE PHYSIOLOGICAL AND THERAPEUTIC RELATIONSHIPS OF ERGOT OF RYE.

By FRANK W. DRAPER, M.D.

(Continued from page 341.)

**THERAPEUTICS.**—So readily are the therapeutic relationships of this important agent inferred from the study of its physiological action, that the indications for its use need hardly be discussed at length. Indeed, so numerous are the accredited occasions for its practical application, that the recorded different instances in which it has been found efficacious would by themselves fill a volume, exhibiting proofs of the most extraordinary powers, and placing it in the very front rank of therapeutic agents. For example, it is claimed by one author to have, for its destiny, to supersede entirely the use of forceps in obstetric practice; while another advocate of its omnipotence says enthusiastically that were it introduced to general practice, the death of a woman in childbirth would never be heard of. (Mitchel on Ergot, p. 78.) Boujean places it at the head of hæmostatic agents, and urges its use in various surgical operations where ligatures are now employed; while for its use in dysentery and in whooping cough, in albuminuria and in asthma, in neuralgia, in gonorrhœa, and in a multitude of other diseases, its advocates are sufficiently numerous to almost warrant its title of universal panacea, and, with a surfeit of virtues, to enable it to partake of the unenviable pretensions of advertised nostrums. In thus passing through the trying ordeal of therapeutic fashion, ergot, in common with all valuable remedies, has been in danger of being sacrificed through the ardor of its friends; but its efficacy is now too well recognized to permit its exposure to any such fear for the future. But from all this apparent diversity and incongruity in its practical applications, it is still possible to deduce a single rule for its general employment, the direct corollary of its physiological action—*whenever it is desirable to stimulate and contract the unstripped muscular fibre, then the use of ergot is indicated.* To the test of this rule its powers as an astrin-

gent, a sedative, a hæmostatic, a parturifacient, in all their seemingly anomalous phases, may be at once referred. The conditions of its action must, of course, be favorable, else, on the one hand, no effect will follow, and we shall say with Madame LaChapelle, "its innocence is its greatest virtue"; or, on the other, its action will be unexpectedly disastrous, and we shall lean to the side which declares that "its introduction into practice has been productive of more harm than good." But between these two extremes is a safe mean wherein its judicious use is the source of indescribable blessing.

It should be remembered, however, that for reasons already referred to, we must not expect a uniform effect on all the parts supposed to be susceptible to the influence of ergot. Nor must it be forgotten that as a necessary result of its general constitutional effect, we must be prepared for symptoms quite unlike those for which the dose was administered, and, it may be, for the time, harmful. Thus it is possible that, in uterine hæmorrhage, our ergot will not only control the flooding, but, at the same time, produce a distressing nausea and alarming depression entirely unlooked for; or, if given to a pregnant female for the relief of myelitis, it may send into the world, "scarce half made up," the ill-fated occupant of the gravid uterus. But if with the beneficent results of the administration of spurred rye we must also expect the undesirable, proper discrimination may still anticipate and avert disasters.

Its earliest as well as its most important use ranks it as the first of parturifacient agents. For nearly three centuries it has been thus employed, and upon its uses, its virtues and its abuses in this direction, have depended the sharp differences of opinion which have sometimes developed to acrimony. The mode of its action and the attendant phenomena have been considered. If in any hands it fails to give good results, the fault is either in the quality of the drug used, or in the unfavorable condition of the patient, either for the time being or through permanent idiosyncrasy. The conditions modifying its action in labor are both mechanical and vital. Thus, an undilatable os tince, a narrowed pelvis, a hydrocephalic head, would offer obvious obstacles to a normal labor which ergot could hardly be expected to overcome. And again, the condition of the patient may have become so depressed, from exhaustion or other causes, that ergot would fail to create its proper effects. So clearly has this been

shown by Dr. Murphy that it may be well to transcribe his own words. "In order," he says, "to excite the action of this or of any other medicine, the nervous system should be capable of conveying the necessary impressions; but when this is not the case, *secale cornutum* cannot stimulate the uterus; nevertheless, if it regain its irritability, or if ergot be given before the uterus has lost its tone, in either case its efficacy is undoubted, and it may be usefully employed. Assuming this explanation as true, ergot of rye may be contrasted with opium. When the nerves of the uterus have lost their natural irritability, and the uterus is in a state of atony, opium is the most efficient excitant to its action, because it then acts on these nerves as a most powerful stimulant; but when that irritability is restored, or if it be only slightly impaired, it acts as a sedative, and may paralyze the uterus. Ergot, on the contrary, is quite inefficient in nervous exhaustion of the uterus, because so far from acting to stimulate in such cases, its effect tends towards sedation, while its specific effect is produced the moment that exhaustion is removed." (Murphy's *Obstetrics*, p. 273.)

The dangers which are said to attend the use of *secale cornutum* in labor are serious and often truly formidable. Rupture of the uterus, puerperal convulsions, irregular uterine contraction, separation of the placenta and violent flooding, prolapse and procidentia, retained placenta, coma and even death, are attributed to its use. Some of these, depending on inevitable and unforeseen conditions, would perhaps follow in spite of the use of any therapeutic agent, or possibly, the more readily, in some cases, were such a remedy avoided; while many if not most of the fatal cases may be fairly attributable to the use of a powerful agent in inexperienced or ignorant hands, regardless of reasonable rules for guidance in such cases.

The indications for the use of ergot in parturition may be considered in two classes of cases—the *ante-puerperal*; including instances in which it may be used before the expulsion of the fetus, to aid in that process; and the *post-puerperal*, comprising conditions favorable to its action after that stage. In the former may be mentioned—  
I. Tedious labor. II. Premature labor. III. Normal labor, when it is desirable to hasten the process when the life of the child or of the mother is endangered. The second class contains cases of—  
I. Puerperal hæmorrhage. II. Retained placenta, depending on uterine inertia. III. Retention within the uterine cavity of clots of blood

and other puerperal matters, such as fragments of placenta or of the membranes.

In tedious labor, which, according to Churchill, is understood to mean parturition in which no manual or instrumental interference is used, but which is prolonged more than twenty-four hours from causes which occasion delay in the first stage, ergot is of use to supply renewed force to a uterus exhausted or too debilitated to overcome the continued resistance. The conditions favorable for its employment are, on the authority of the same writer, "when the pains are feeble and inefficient without especial cause; if the os uteri be soft and dilatable; if there be no obstacle to the natural delivery; if the head or breech present and be sufficiently advanced; and if there be no threatening head symptoms nor excessive general irritability." (Churchill's *Midwifery*, p. 264.) The conservative and rational policy of Dr. Coudie would modify these rules, so that ergot should not be used until the os uteri is not only dilatable but is fully dilated, and the other soft parts are in a favorable state of relaxation. This would appear to be the more prudent course, to the end that all necessary safeguards might be established. Desgranges, an enthusiastic advocate of ergot in the last century, recommended its use in hastening tardy dilatation of the neck of the uterus, and cites numerous confirmatory cases. But such employment is manifestly attended with no slight risk to both mother and child, for the incessant, unremitting uterine contractions induced by ergot, especially if no outlet be provided for the escape of the contents of the womb, must necessarily have a deleterious effect, in a mechanical point of view, on the fetus, while the exhaustion to the uterus itself and to the whole maternal system is increased by the ineffectual influence of an extraneous agent, to the degree that convulsions sometimes result.

The use of spurred rye in premature labor, to hasten or produce it, when such a proceeding is unfortunately necessary, depends on a question scarcely solved even to-day—the power of that remedy to initiate uterine contractions. Rationally and consistently, according to the proposed theory of its physiological action, such an effect is to be looked for. If the theory of its action is true, it should apply to the uterus when unimpregnated, or in the early stages of fetal development, no less than at full time, when normal contractions have already commenced, the difference being only one of degree. Authorities are not



wanting in support of this view. Thus, Churchill, in discussing the method to be used in the induction of premature labor, says of ergot of rye, that "it is now generally believed to have the power of originating uterine contractions, and when it succeeds, it is a very effectual and safe mode of inducing premature labor, because we can preserve to the child the safeguard of the liquor amnii, which is of the greatest importance." (*Midwifery*, page 308.) Ramsbotham has published cases in which ergot was thus found efficacious, and advocates its use. (*Medical Times and Gazette*, 1854-1856.) So firm was the professional opinion in France that this power to produce abortion resided specially in ergot, that the Royal Academy urged its exclusion from practice. It has been repeatedly noticed that pregnant women exposed to the chronic effects of ergot, show a very decided tendency to abortion at any stage of pregnancy. It is to be remembered that the peculiar action is marked in proportion to the extent of the muscular tissue exposed; and if, in the early stages of pregnancy, we fail to experience the ready and decided effects of ergot which mark its influence in normal labor, much of the difference may be explained in this way. If, moreover, it is not to be wholly relied on as a means for the induction of premature labor, we have in it, at all events, a powerful agent for the supplementing of other means; if, after mechanical appliances have been resorted to, to separate the uterine membranes or to dilate the os tincas forcibly, it is required to expedite the expulsion of the foetus, ergot seems a ready agent to complete the process.

There are, thirdly, conditions in normal labor, rare and exceptional, when it is desirable to finish the act as soon as practicable. Thus if, at any stage, puerperal convulsions should develop, or if unexpected hæmorrhage should occur, or if some condition of the child should indicate it, we should look for other means than the natural labor pains to hasten the act of parturition. Such an aid we have either in the uterine forceps or in the agent we are studying.

In this discussion of the use of *secale cornutum* in ante-partum cases, one very essential element requires consideration—the effect on the foetus in utero. Authorities are too numerous to be controverted, that spurred rye is dangerous to the life of the child in labor. The symptoms in living children who have been born with the assistance of this remedy are too well marked, and the

appearance in those stillborn are too characteristic to induce any belief other than that they are to be referred, primarily or secondarily, to its unfavorable influence. This deleterious effect on the child, whether it be fatal or whether it produce a less degree of harm, may be explained in three ways:—first, the mechanical action of the continued and uninterrupted ergotic contractions of the uterine on the body of the foetus, must obviously be more or less harmful, compressing the brain, cramping the limbs, and compromising the circulation; secondly, the same incessant tonic contraction, acting at once on the muscular tissue and on the vessels of the uterus, tends directly to impede both the uterine and the foetal circulation, thus allowing no truce to repair exhaustion, and to permit fresh blood to enter the partially emptied vessels; while at a distance from the uterus, the secondary sedative effect on the heart also modifies the normal circulation; thirdly, so long as the foetus is attached by its umbilical cord to the uterus, deriving its nourishment from that source, its susceptible organism must be more or less exposed to the toxic influence of ergot, through the maternal circulation, in common with every other part. Observing the peculiar phenomena in children born alive or still, after the use of spurred rye in labor, and identifying them with the symptoms of acute ergotism, Dr. Beatty has concluded that most of the fatal cases in children in ergotic labor are induced by an exposure of more than two hours to the poisonous effects of ergot through the blood of the mother. In many cases, also, in which the children survived, he has noticed modified ergotism and secondary permanent effects, manifested chiefly through the nervous system, and attributed by him to the same cause. His numerous observations in this direction have therefore led him to establish the rule that ergot should not be given in any case in which the labor will not terminate within two hours, since the probabilities are vastly in favor of a fatal toxicological effect on the foetus, if it be exposed beyond that period.

In the second general class of cases in which *secale cornutum* is of use in parturition, those, namely, after the birth of the child, the first order, including cases of puerperal hæmorrhage, is by far the most important, and illustrates most fully the beneficial effects of this remedy. The foetal contents of the uterus having been expelled, that organ itself exhausted by its prolonged labor, and incapable, for the present, of spontaneous contraction, the placenta either

wholly detached and lying inertly in the cavity of the womb or only partially separated, and as a consequence, in either case, a steady and most alarming escape of blood, putting the life of the patient in momentary jeopardy; all these conditions constitute a most serious combination, and any agent endowed with power to relieve it is of incalculable value. The indication is to stimulate the relaxed and wearied uterus to renewed action; whatever will do this will close the exposed mouths of the uterine vessels, complete the detachment of the placenta, and expel it, and thus at once effectually control a condition acknowledged to be the most alarming in the experience of the accoucheur. In conformity with the proposed theory of its physiological action, ergot acts in three ways to control the hæmorrhage:—first, the muscular fibres of the uterus are revived to renewed action by the direct stimulant power of the drug, thus necessarily closing the uterine vessels; secondly, the calibre of the vessels themselves is lessened and the flow of blood diminished; and thirdly, the flow of blood is also modified by the general sedative effect on the heart and circulation. All these results being produced in unison, an early and favorable effect is produced. And fortunately, in view of the formidable nature of the accident, the conditions which are to be remembered as favorable to its action are few and obvious. There is now no fœtus to fall a possible victim to ergotism; there is no danger of rupture of the uterus or of any of the concomitant accidents of labor when ergot is used as an adjuvant. The indication is to contract the uterus, and the principal condition for the action of ergot in such an emergency is that the nervous irritability of the patient shall not have become exhausted to such an extent that the medicine would fail to exercise its influence. To this end many excellent authorities are in the habit of administering *secale cornutum* as a prophylactic to flooding, and to women known to be predisposed to post partum hæmorrhage, or in cases even of doubt, they give the requisite dose at the close of the second stage of labor. This practice is generally attended with most satisfactory consequences. The third stage proceeds at once, and the whole labor is terminated without complication.

The indications for the use of ergot in cases included in the second and third classes of post-partum conditions, those in which the placenta, or any detached portion of it, is retained through inertia of the uterus, or in which coagula or fragments of

the membranes remain as foreign bodies, to provoke renewed hæmorrhage by their presence, are so obvious and follow so closely on the conclusions already expressed, that they need no farther elaboration. So, too, the efficacy of spurred rye in expediting the expulsion of other bodies from the cavity of the uterus, besides those attendant on the puerperal state, is manifest. Great reliance is placed upon it in the management of polypi of the uterus, hydatids and other abnormal growths.

That hæmorrhage under other conditions and in other parts of the body than those peculiar to parturition should be, in greater or less degree, amenable to the hæmostatic power of ergot, is readily inferred. The analogy is sufficiently clear and universal. Having a power to act on the inorganic muscular fibre, residing not in any chemical influence, but in its vital action as a special astringent, its utility in certain cases of hæmorrhage is obvious theoretically and is confirmed in practice. Menorrhagia, metrorrhagia, epistaxis, hæmatemesis, hæmoptysis, hæmaturia, rectal hæmorrhage and that depending on cancer, hæmorrhoids or scurvy, the hæmorrhage of dysentery, are thus all susceptible of successful control by ergot, since they are all dependent on an analogous condition or lesion of the capillaries. This result is especially marked, if with the hæmorrhagic symptoms a firm, bounding pulse indicate a sthenic condition of the circulation, since the secondary depressing influence on the general circulation must have a direct tendency to control the escape of blood. This is of general application in idiopathic or in traumatic hæmorrhage from the capillaries, and the cases of its efficacy in all the conditions mentioned are sufficiently multiplied to establish the prestige of ergot in this relation, whether it be administered internally or locally.

There are even authorities for giving to *secale cornutum* a still higher place as a hæmostatic agent. In 1843, the Royal Academy of Sciences in France reported, through its Secretary, that "ergotine is the most powerful remedy which medical science possesses to control arterial or venous hæmorrhage"; and three years later, the Royal Academy of Turin concluded that "ergot was a hæmostatic agent especially appropriate to arrest arterial hæmorrhage, even in great vessels, without occluding them." Without claiming for spurred rye that it will entirely supersede the use of the ligature in surgery, M. Bonjean urges its local, external use in many

cases in which ligation would generally be resorted to, involving inconvenient if not grave operative complications. He even goes farther, and cites cases in which, under the effects of ergot of rye as a surgical dressing, by means of tampons or otherwise, lacerated wounds of considerable extent have healed "with very little suppuration or inflammation, and sometimes even by the first intention," owing, as he believes, to the depressing influence on the adjacent parts. (On Ergotism, p. 12 et seq.)

These results, although stated with emphatic directness, and supported by well authenticated authority, and moreover confirmed by cases of remarkable cure, have hardly given to ergot, in our time, an important place among surgical therapeutic agents for the arrest of hæmorrhage, or for other indications, and appear to need still further proof.

Among the more indirect and anomalous indications for the use of spurred rye, most of them substantiated by trustworthy cases, many of them founded on empirical experience, and all of them probably dependent on the secondary effects of the drug, acting through the circulation to modify the nutrition of the diseased parts, may be mentioned the various affections of the mucous membranes, such as bronchitis, leucorrhœa, diarrhœa and gonorrhœa in their chronic stages. Gubler, in common with other writers, urges its utility in alleviation of either the passive or the inflammatory congestion of the unimpregnated uterus, in incontinence of urine on account of deficient tonicity of the sphincter of the bladder, in spermatorrhœa under similar conditions, and in calculus of the bladder to aid in the expulsion of the fragments. And at a still greater distance from the more obvious conditions subject to the proposed theory of its action, and indeed in some degree savouring of homœopathic inconsistency, may be mentioned the use of ergot in puerperal convulsions (Gendrin, Baylis's Commentaries, p. 448); in the puerperal after-pains (Beatty, op. cit.); and in intermittent fever (Pereira, Mat. Med. p. 82). Others recommend its use in whooping-cough (*Edin. Med. and Surg. Jour.*, vol. ix. p. 56) and in amenorrhœa (Giacomini, op. cit. p. 330). It is difficult to account for the action of ergot in these cases on any uniform principle, if we accept at the outset the fact of its efficacy.

In more manifest accord with the theory of action proposed may be noted the general application of *secale cornutum* in all inflammatory states (Hartshorne, Essentials

of Pract. Medicine, p. 90). Illustrative of this, we may cite the observations of Parola, who found it useful in the first stage of pneumonia and in diarrhœa and peritonitis.

Finally, it remains to allude to a class of cases in which the efficacy of ergot depends on its continued stimulant action on the muscular elements of the vessels supplying the nutrition of the spinal cord. In 1831 Barbier first employed spurred rye in paraplegia, complicated with retention of urine, and with good success. (Rev. Med. xiii. p. 332.) Subsequent similar results were attained by various observers, and on various theories. It was reserved, however, for Prof. Brown-Séquard to elucidate its action and to propound rules which should govern its employment. Having demonstrated experimentally that ergot in common with belladonna had the power of diminishing the congestion of the spinal cord, he reasonably applied those remedies to cases of paraplegia depending on myelitis or on simple congestion; the attendant hyperæmia being the requisite indication, in contradistinction to the condition in white or non-inflammatory softening. He establishes it as a rule of universal application, that ergot is to be used in paraplegia only in cases in which the symptoms of irritation indicate some inflammatory change in the cord or its membranes; and among these symptoms he enumerates altered sensations of heat and cold, continued cramps of the abdominal or thoracic muscles at the upper limit of the inflammation, giving a feeling as of a tight band around the body, referred sensations of formication, of pricking or of heat and cold, and general muscular spasms. He thus draws a marked distinction between cases in which ergot is useful by temporarily modifying the nutrition of the cord, and other conditions in which such a proceeding would result in positive harm by still farther compromising the supply of blood, already too greatly diminished (*Lancet*, Dec., 1860, p. 605). To all states, then, of the spinal cord, in which congestion is a present symptom, ergot is applicable; and in support of this, abundant clinical evidence is adduced demonstrating its efficacy in such cases.

The dose of ergot for fulfilling these therapeutic indications is either simple or continued; the former applicable to cases in which it is liable to produce marked and immediate effects without repetition of the administration, and the latter to those in which continued action is sought. The obstetrical indications illustrate the one, and the conditions in myelitis, the other. In

obstetric practice, the infusion of the crude drug, freshly powdered, is preferred, greater certainty of action being secured. The formula of Dr. Beatty directs the infusion of two scruples of ergot in four fluid ounces of boiling water, and of this one half is administered at a dose. The fluid-extract is also largely used, each minim representing one grain of the drug. For the continued action the standard dose is five grains. The ergotine of Bonjean, much used in France, is given in doses of from one to three grains.

This study of the psychological and therapeutic relationships of ergot is not intended as a complete or exhaustive review of its characteristic powers. The object has been to present, in a brief way, a *résumé* of the latest views, by the best authorities, concerning a remedial agent whose legitimate use has placed it in the first order of importance in the *materia medica*, establishing for it a position which all the evils, attending its abuse, can hardly compromise.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, JUNE 17, 1869.

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WE have alluded, in a former number of this JOURNAL, to the experiments of Cohnheim upon the *white* corpuscles of the blood, and to the doubts thrown upon their accuracy by Balogh. We now give extracts from a translation by S. Nickles, M.D., in the *Western Journal of Medicine*, of a paper by Cohnheim on Congestion, with especial reference to the behavior of the *red* globules. These extracts we follow with an abstract from the French, which speaks for itself.

"Cohnheim publishes (*Virch. Arch.*, xli. p. 227) an investigation on venous congestion, which is closely related with his researches on inflammation and suppuration. The object of the inquiry was to ascertain why, in passive hyperæmia, a plasmatic fluid (*œdema*) transudes very copiously, while, on the contrary, lymphatic elements (*phlegmon*) find egress in but limited amount.

"Cohnheim selected for his observations the web of frogs which had been treated with curara poison, and in which, by means

of a simple and suitable contrivance for regulating the firmness of a ligature, he could absolutely control the circulation of the femoral vein. He found that soon after the ligation of the crural vein, the movement of the blood in all the vessels of the web became *pulsative* and *rhythmical*, while, at the same time, the *rapidity* of the *current gradually diminished*, so that, finally, one gets the impression of a resting mass pressed onward only at intervals, by the pulse-move. The cause of this phenomenon is, that the resistance in the veins and capillaries has become so great from the sudden closure of the crural vein, that it can be overcome only by the systole. *Edematous infiltration* of the web begins very early, while the *axial character of the current disappears* in the arteries and veins, and soon, with but *moderate dilatation*, all the vessels become *densely filled with blood corpuscles*, of which the red ones are so placed in the capillaries that not the edge but the surface is struck by the current. The accumulation of the red corpuscles increases gradually to such a degree that their outlines seem to blend with one another, and a few minutes later the capillary vessel presents a homogeneous, red, immovable cylinder, which soon changes its color from a light yellowish or greenish red to a bluish red, the color of venous blood. Without any marked alteration in the interior of the capillaries, one may now observe on their outward periphery the protrusion of *small red, rounded elevations*, which form lateral offshoots, not unlike little mulberries, and their collapse and change into ordinary red blood corpuscles. If the ligature of the femoral vein is now removed, the normal conditions are soon reestablished, the red corpuscles, one by one, becoming separated in the direction of the veins from the apparently homogeneous cylinders. Of course the red masses already exuded into the tissues are not affected by this restorative process, whereas, the intracapillary part of cells about passing through the walls, is lashed by the current of blood until it is torn off and carried away."

"That, on the contrary, the red corpuscles do indeed pass through the *unbroken wall of the vessel*; that, in other words, really a *hemorrhage per diapedesin* and not per *rhecin* presents itself, is shown by the circumstance that as soon as the circulation again becomes free and the pressure upon the capillaries remits, not a single corpuscle follows those already exuded."

PATHOGENESIS OF HÆMORRHAGE.—In connection with the preceding extracts, we give a passage we have translated from the *Gazette Hebdomadaire* of a sketch of M. Bouchard's thesis, presented at *Concours*—subject, Pathogenesis of Hæmorrhage.

No true hæmorrhage can occur without preliminary rupture of a vascular wall. The *diapedesis*, or transudation of blood, with all its constituent elements, should be altogether rejected. We should look upon effusions of colored serosity as only pseudo-hæmorrhages resulting from the exosmosis of fluid holding in solution hæmatin given out by altered globules. The recent experiments of Cohnheim, which are claimed to show that globules are capable of passing through the vessels by way of preëxisting apertures—stomata—are open to doubt on the grounds of physiology, of demonstration, and of the interpretation of the phenomena. In an extended and noteworthy discussion of the question, M. Bouchard establishes the point that those phenomena throw no light on the pathogenesis of hæmorrhage.

Now, vascular rupture being indispensable and necessary to the occurrence of hæmorrhage, what are the conditions which preside over such rupture? They are of three classes: exaggeration of the tension of the blood; diminution of the external pressure and of the support furnished to the vessel by the surrounding parts; alteration in the firmness of the vascular wall. These three causes may concur in the production of hæmorrhage; or either one may cause it independently of the others. In the latter case, there are certain anatomical and physiological conditions of the circulation which favor the vascular rupture in this or that part of the circulatory system.

THE CITY GUESTS AT MUSIC HALL, JUNE 9th.—One of the penalties of His Honor Mayor Shurtleff's political eminence is the necessity of welcoming City visitors of all sorts; though we suppose it is just possible that in some cases the medical position may be sunk quite as far as is desirable in the politician. But, he doubtless remembers that when the "root and yarb" old ladies of the "Halle" call upon the Em-

peror, the Emperor is expected to take off his hat and do the honors. Running our eye down the newspaper columns we see nothing (beyond the silly story we adverted to last week) especially worthy of note in connection with the visit to the "City of Notions" of the miscellaneous assemblage of large dosers, small dosers, and hybrids, who in these days congregate under the "homœopathic" trade-mark, unless it be that they continue to pronounce the solemn opinion that in their judgment the rest of the medical world are "allopathic."

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.—(*Second Day's Proceedings, concluded.*)

The Chairman then gave the sentiment—  
"God save the Commonwealth of Massachusetts."

Until within a late hour we had hoped that His Excellency, Gov. Claflin, would honor this occasion with his personal presence, but he is unavoidably absent.

In the early days of our colonial history the Chief Magistrate was not unfrequently the medical as well as the political adviser of the community. Whatever the gubernatorial theory and practice of those days may have been, we are fortunate in having in these recent and more stormy times one to whom the medical and surgical affairs of the State can be safely intrusted.

In the absence of the Chief Magistrate, I call on that most popular of Massachusetts generals during the war, Surgeon-general Dale.

Dr. Dale thus replied:—

His Excellency the Governor of the Commonwealth directs me, Mr. President, to express to you and the Fellows of the Massachusetts Medical Society his regrets that pressing official duties prevent his acceptance of your kind invitation.

He further directs me to say that, cordially endorsing the views of his distinguished predecessors in the Executive chair, he gratefully recognizes our venerable Society as the legitimate exponent of all matters connected with the profession, acknowledges its usefulness as the honored and faithful conservator of medical science, and entertains for it and its Fellows the highest respect. It would have given him great pleasure to have joined the Society in a recognition of the patriotism, public services, integrity of life and professional eminence of the distinguished orator of the day.

Our illustrious Governor, said Dr. Upham, for aught I know, may be detained on examination before the State Constabulary Committee. I will therefore summon our distinguished fellow-citizen and professional brother, the municipal head of the city of Boston, to tell us if he has found anything rotten in Denmark—and if so, what is the remedy he would propose.

Mayor Shurtleff spoke as follows:—

*Mr. Chairman and Fellows of the Medical Society:*—For this sentiment of respect to the city of Boston, and for the kind manner in which it has been received by this Society, I thank you most sincerely. It gives me great pleasure to be with you again to-day, and renew my most agreeable associations with the brethren of a profession of which for more than thirty-five years I have been an active member; and this, assuredly, should entitle me to feel that I am not, on this occasion, with strangers, at least with the older portion of the medical gentlemen gathered around these tables. You need not be told by me that you are assembled in a city whose people most highly appreciate the ministering cares of your daily avocation. Boston has always been preëminent in respecting the good physician; and the profession has always allowed to Boston some of its most distinguished practitioners. Here medical men have always taken an interest in all useful and benevolent projects, and here they can be found holding high positions of trust, counsel and work in all matters that are good and beneficial to the community. I will not, however, take up your time at this festal board by any panegyric of the profession; for I can add little or nothing to what you already know; but I certainly should be recreant to my own feelings of loyalty and affection were I to allow this opportunity to pass without joining with you in renewing my most unqualified allegiance to this most honorable and illustrious Society of most enlightened and philanthropic gentlemen. And let me assure you, brethren, that it is a great comfort as well as pleasure, in these days, when our good old quiet city is liable to be disturbed by all the various discordant elements which originate and cultivate useless and evil-disposed schisms and associations, to greet with the warmest welcome the genial and benevolent faces of the Fellows of the Massachusetts Medical Society on their annual advent to this city.

The next sentiment proposed was—

*The Clergy*—occupying the middle and neutral ground between the physician and

his patient, they are the trusted and friendly counsellors of both—welcome in our joyous hours of recreation and festivity;—thrice welcome at the bedside of diseased and dying humanity.

The Rev. Dr. Lothrop, in responding, spoke as follows:—

Mr. Chairman,—I thank you for the sentiment you have just offered in recognition of my profession. I thank you for the honor of being a guest here to-day, for the satisfaction of meeting so many of the noble profession to which you belong, and of joining in the anniversary festivities of a Society whose record is so fair, without a spot or blemish, as the Massachusetts Medical Society—a Society that numbers on its list of past and present members, the living and the dead, so many names of distinguished and useful men, and that has done so much to elevate and keep at a high point, the standard of learning and character in the profession in whose behalf it was instituted. The relations of the medical and clerical professions are of necessity intimate. Meeting together in the chamber of sickness, one to heal the disease of the body, the other to comfort and soothe the mind, they are, always have been and always must be joint partners in administering to the deepest wants and most pressing necessities of humanity. You were pleased to refer to my profession as connecting itself with the joyous and the sad events of life. This is true, but equally true of your profession; for if there be nothing more sad or more universal than sickness and death, there is nothing more joyous than birth, a new life in a family—and neither of them takes place without the presence of your profession, to aid the one, and, if possible, relieve or prevent the other. You are in at the birth and death of every individual, and you are liable to be summoned to his help at every step between the cradle and the grave. It is true of my profession, and with a somewhat broader meaning, simply because religion is universal in its influence, and should pervade, glorify and exalt the whole of our being, go with us into every scene, and mingle with every thought and purpose. The world does not recognize this to the extent it ought, and is always ready to find some fault with the exhibition of religion that is made in the life and character, as being too broad or too narrow, too lax or too strict and stern. John, the Baptist, with his girdle of camel's hair, his food locusts and wild honey, and his ascetic mode of life, drew forth the condemnation—"he hath a devil." Jesus of Nazareth, sim-

ple and natural, mingling freely in the social life of his time with all classes, drew forth the condemnation, "a man gluttonous and a wine-bibber." In all professions and callings there are annoyances of this sort, arising from misjudgments and a censorious spirit. The only remedy is for every one to remember that to be a man, a true, honest, and faithful man, is the highest and best thing that any one can be, greater than being a clergyman, or a physician, or any thing else, and set his manhood above his profession or calling, and carry it with him into all the walks of his profession, and he will be happy and useful.

Mr. Chairman—I need not say, sir, that I honor the medical profession, honor it in its history, character, purpose, honor it in the names of the many good, noble and devoted men who have adorned its annals from the earliest times, honor it in the progress it has made in anatomical and medical science, in the discovery and application of remedies for disease, and in all that it has thus done to relieve human suffering, prolong human life, and to add to the sum of human happiness. No profession or calling in life, I suppose, Mr. Chairman, is to be unduly exalted as absolutely and in itself more important than any other, for all, however we may distinguish them as highest or lowest, all are dependent one upon another. What Paul says of the human body, "that the eye cannot say unto the hand I have no need of thee, nor again the head to the feet I have no need of thee," that we have many members but one body, and every member alike important in its place and office, is true of society—and of the members of society, they that seem the least are often as important to the grand result as they that we call the greatest. I was crossing the Atlantic once, when the engine was suddenly stopped, and the little floating world on board the steamer were in some consternation to know what was the trouble, and we were informed that a little nut that held a screw or bolt in its proper position had worked off, and it was necessary to replace it. That little nut, apparently a most insignificant part of the machine, in its right place, doing its right work, was as necessary to the safe and successful action of the engine as the main shaft. Society is a great machine, and the most lowly and obscure portions, doing their work faithfully, are as important and useful to the right action and result of the whole, as the most distinguished and exalted. Life or death hangs upon the skill, the knowledge, the steady mind and steady hand of the surgeon

in performing some nice, delicate, dangerous surgical operation. He performs it successfully, and rightfully gathers gratitude and honor. But he could not have performed it without his instruments, and without their being of the right kind, well made and perfectly reliable; and for them he is dependent upon various obscure persons, from the miner who dug the ore and the workman that tempered the steel, to the accomplished artisan who gave the last touch of keenness and polish that made the instruments fit for surgical use. Social life abounds everywhere with illustrations of this kind, and if this mutual dependence of each upon all, all upon each, were felt and understood, there would be less of pride and envy and discontent, more of honest manliness and mutual respect—in short, a more Christian Commonwealth. But as "health is the poor man's blessing and the rich man's boon"—as no man can do anything, save as he is well and strong—in body and in mind, the profession whose purpose it is to guard and promote health and strength, may claim a very high rank among the elements that enter into and determine the measure of human happiness; and so I give you, Mr. Chairman, this sentiment:—

*The Medical Profession*—Its usefulness, the learning, the skill, the care, the fidelity of its members, give a claim to honor, reverence and gratitude which no intelligent community will fail to acknowledge.

The reader need not be told that the following motto was pronounced in honor of Dr. Jacob Bigelow:—

*"Nature in Disease."*—No better illustration of the power of the doctrine can be found than the still hale and hearty life of its great exemplar, the *Nestor of the profession*.

Dr. Bigelow not being able to be present, we were favored with this letter:—

Boston, June 1, 1869.

MY DEAR SIR,—On my return last evening from a journey of four weeks, I found your very kind letter of May 26th, inviting me to attend and assist at the annual festivities of the Massachusetts Medical Society.

Much as I should be delighted to be present at this re-union of our time-honored Society, I regret that the engagements accumulated during my absence render it impossible for me to be present at the necessary hour.

Every one who travels, and every one who stays at home and reads, must be satisfied that the world is now eminently in a

transition state, and that in this revolution of things our own country is taking the lead. The obsolete studies which have for preceding ages consumed the most susceptible period in the lives of our youth, are being replaced by more solid and practical sciences and arts, equally useful as discipline for the mind and far more remunerative in substantial benefit to mankind.

The progress which we trust the science that we ourselves represent is undergoing at the same period, is to be found in the preponderance of the *science* of medicine over the *trade* of medicine, and in identifying the interest of the physician with the interest of his patient. The mysterious charlatanry of former ages, the pretence and assumption of unlimited power over disease, the covering up of our unavoidable shortcomings with a fog of technical forms and unintelligible language, are things already of the past, as far as enlightened physicians are concerned. Rational medicine is beginning to inform the profession and the public in regard to the true powers of the healing art. The community are beginning to be undeceived and reeducated so far as to know what is true and trustworthy from what is gratuitous, unfounded and fallacious. And the profession themselves will proceed with confidence, self-approval and success, in proportion as they shall have informed mankind on these important subjects, and in proportion as they shall understand their own powers, profess simply what they can accomplish, use rightly their immeasurable power for good or for evil, and do to those who are committed to their charge what they would wish should in like case be done to themselves.

Your friend and serv't,

JACOB BIGELOW, M.D.

To J. BAXTER UPHAM, M.D.,

*Anniversary Chairman.*

The Chairman now said—

It is sometimes charged against the medical profession that in the courts of law they are the worst witnesses and the most refractory subjects that the bench and bar are called upon to deal with. Now I look upon this as a libel, and I call upon that staunch and eloquent representative of the law, Judge Devens, to refute the slander.

Judge Devens delivered a most charming address, in which he maintained that the same qualities necessary to make a distinguished physician were necessary to make a distinguished judge.

Prof. Samuel Eliot, LL.D., was called up by the following sentiment:—

*Medicine in its relation to Art and Litera-*

*ture.*—One of the best historical sketches of the leading men of the Massachusetts Medical Society in the last century was from the pen of Dr. Ephraim Eliot, and may be found in the printed proceedings of the Massachusetts Historical Society for 1863. Whether the medical writer was a blood-relation to the well-known historian of our day I cannot tell; but on the score of his distinguished literary and æsthetic attainments, we shall claim him as one of the sons of "old physic."

Prof. Eliot responded in a burst of oratory which those who have heard him can imagine, but which we cannot describe.

At the close of Dr. Eliot's address, Dr. Upham rose and read the following remarks:—

*"The Science of Modern Practice and Therapeutics*—It cannot be better shown than by contrast with the usages of our worthy ancestors a couple of hundred years ago. I have here a prescription sent by a famous London physician to John Winthrop, Governor of the Colony of Massachusetts Bay, A.D. 1643. It is called 'a remedie against fevers, poysons, smallpox, the plague, and such like'; and is as follows: *R.* In the month of March take Toades, as many as you will, alive: putt them into an earthen pott: cover it e a broad tyle; then overhelme ye pott, so ye bottom may be uppermost; putt charcoales round about it, and in ye open ayre, *not in an house.* Sett it on fire; when cold take out ye toades and in Iron mortar pound them well and *tearce* them (whatever that may be) —a black powder will result. Of this you may give a dragme inwardly in any infection. For prevention  $\frac{1}{2}$  a dragm will suffice. Moderate the dose according to ye strength and constitution of ye partie."

As if to enforce the contrast here alluded to, Dr. Upham then turned to a distinguished guest on his right—who is one of the shining lights of modern science—and said:—We have with us a distinguished representative of the profession from the city of New York—well known to you all by name and reputation—to whom personally and to the noble body of co-workers with us in that great city, we are happy to extend a cordial greeting. I have the pleasure to announce the presence of Dr. Edward R. Peaslee.

Dr. Peaslee honored us with a highly interesting and forcible address.

The other sentiments were—in the order in which we find them reported—The Organ of the Medical Profession in New England, responded to by the Editor of the



Boston Medical and Surgical Journal; The Delegates from other States, by Dr. Joseph C. Hutchinson; The Orator of the Day, by Prof. Munroe, on behalf of Dr. Hitchcock; Psychological Medicine, by Dr. Tyler, of Somerville. Dr. Tyler said:—

"I thank you, Mr. Chairman, for placing so high an estimate upon psychological medicine. I thank you for the honorable way in which you speak of the dear old institution which it is my honor to have charge of, and for the flattering personal reference, which latter I well know springs in great part from the life-long friendship and partiality which you have never failed to extend to me. Gentlemen—brethren—Difficult and delicate as psychological medicine is, I believe it is better understood in its theory and practice to-day by the great community of New England physicians than it ever has been by them or by any equally large body of medical men in the history of the world.

It is through you, my medical brethren, as much and more than by hospital superintendents, that the community is, or ought to receive its proper instruction in psychological medicine—that is, concerning the proper care and treatment of the insane.

The moment a person becomes insane he requires the care of others; he becomes in a sense a public charge.

If you do not show the public the right way to treat him, others will—and there can be no worse mistake than to leave this important duty to a politician; there is too much affinity and kinship between the two characters to make this a safe operation; it is worse than the blind leading the blind, and the two will be likely to end in worse than a ditch!

The community is full of false notions concerning the nature of insanity and its necessities, and to you it belongs in a great measure to correct them. But, gentlemen, I know you do not want to hear a speech at this late hour, and should I undertake to go on, I fear me you would think that I was delivering a clinical lecture on insanity, with demonstrations from the patient. Only one thing I do wish to say, because here, to a body of high-minded, intelligent physicians, is the place to say it.

The practice of psychological medicine, that is, the care of the insane, comprises their custody and their curative treatment. All require the former, but not all the latter. In other words, all the people in the State who to-day are insane need supervision; for but a small number, however, would *curative* treatment be of any use.

A part of the insane who may be rich can be taken care of very much as other sick and dependent people are—at home, in private families at large. But the insane poor *all* become a public charge, and, with every phase and variety of the malady, are congregated in our State Hospitals; and many of these, Dr. Bemis told you yesterday, do not require hospital treatment, and would be happier and better off elsewhere than in hospitals. But there is no other place for them. In what manner these people, dependent upon the public for every care, can best be provided for, humanely and consistent with proper economy, is the great question of the day in this department. Now this mere custody is very different from the necessities of *curative* treatment. And this I beg you to explain to every one you meet. To many requiring only custody large liberty can be given; and for them different constructions from our large and expensive hospitals might be as well. But the necessities of those who require curative treatment are entirely different; and what they do require is as well settled as any fact in medicine, having been proved by thousands of successful results in every civilized land. The prominent requisites are separation from home and familiar persons and associations, occupation of the mind upon subjects which it can handle in a healthy way, and every attention to the always existing physical disorder; and this to be continued until the mind regains its poise and self-control.

From confounding the mere requirement of custody and the absolute necessities of curative treatment, have arisen much of the misunderstanding and irritation in the community concerning the care of the insane. If you can, and I believe you can, make this matter better understood, you will do a very great moral as well as professional service.

The proceedings were closed by the singing of Auld Lang Syne.

Our readers are now in possession of what Prof. E. H. Clarke pronounces the best monograph on ergot extant.

WE call attention to the advertisement of Dr. Amory. The study of the action of drugs, by practical experiment, is, in our opinion, that branch of medical investigation which now promises the most satisfactory harvest; and which is to put scientific therapeutics on such a basis as it has never before had.

## Medical Miscellany.

THE following extract from the Boston City Registrar's Report was crowded out from our last issue:—

"Physicians.—Another serious evil\* is the indefinite nature of the certificates of deaths made out by some physicians. This fact is one of more consequence than those delinquents seem to attach to it. This complaint would not arise in the majority of cases if physicians would, when possible, state the primary and secondary causes of death. For instance, coroners (those who are physicians) will say, in a given case, "death from poison," without specifying whether death was the result of an accident, or was self-inflicted. It is important, in every point of view, that it should be determined whether the case was one of suicide, homicide, or was accidental. Again: one physician states that a woman died of peritonitis, without using any qualifying term to distinguish its essential character. The death may have been the result of an accidental injury; or it may have resulted from childbirth; or it may have been murder. The facts are of value not only to the few, but are such as concern the whole community. If vital statistics are worth anything, they should be made to express all that concerns the health and well being of every individual. The same objection lies against a large number of cases where death is said to have been caused by inflammation of the brain, bowels, or other parts of the body. Hemorrhage is another term frequently used, and often conceals what it is desirable should be made known.

"Many of the deaths recorded in the City Registrar's Reports each year, as resulting from accidental causes (with the exception of those occurring in the hospitals), have been designated in the physicians' certificates in the unsatisfactory manner alluded to above. Those deaths were known to have been accidental ones through other channels, and, therefore, were so classed. The record alone, however, will not show that some were not homicides, and others suicides. Until physicians, therefore, shall express the cause of death in the way above indicated, and as the registration law obviously requires, the whole system, so far as it concerns the records of deaths (than which no subject is of more importance to the whole community), will fail in its most essential features, and prove, to a certain extent, practically useless."

[We leave comments to those who choose to offer them.—Ed.]

A SLIP giving the report of deaths in the city of Providence, R. I., during the month of May, 1869, has been sent us with the following passages marked:—

"There were two murders in the month of May, which are only counted in the above table as one death, under the head of *criminal abortion*. The victims were a young, healthy married woman and her unborn child. From some foolish reason, at any rate with no good and sufficient reason, she consented to do violence to the laws of her being, to prevent the high object of the marriage rela-

tion, and to become accessory to the murder of her own offspring. In so doing she lost her own life. It would be well if her death might be a warning to others, and if all would remember that this crime can never be done with safety. It is always murder of one human being; there is always possible danger to the life of the mother; there is always certain injury to her health and happiness.

"The murderer in this case received twenty-five dollars for his services in killing two human beings. He assured the deluded woman that there was no danger, but exacted from her a solemn promise that "whatever might happen, she would not tell any one of his crime. \* \* \*

"EDWIN M. SNOW, M.D.,  
Superintendent of Health and City Registrar."

**RAPID CHANGE OF COLOR IN HUMAN HAIR.**  
*Mr. Editor.*—The possibility of the bleaching of the whole hair of the head in one night *was fully established* by a case which occurred under the observation of Dr. Landois, of Greifswald, in 1866. An account of it was published in the JOURNAL of August 30th of that year. The change of color was not due to the disappearance of the pigment, but to the presence of minute air-bubbles within the cortical and central portions of the hair.

The sudden change from black to white in single hairs reported in your last issue, was probably due to the same cause. It may be that this change in Dr. Brown-Séquard's case did occur only in the night, but some recent observations of Dr. Landois in a case of intermittent blanching show that the process is not necessarily nocturnal.

J. C. W.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communication has been received:—A Clairvoyant Diagnosis.

DEATHS IN BOSTON for the week ending Saturday noon, June 12th, 81. Males, 41—Females, 40.—Accident, 2—apoplexy, 4—asthma, 1—disease of the brain, 4—bronchitis, 2—burns, 1—cancer, 1—cholera infantum, 2—cholera morbus, 1—consumption, 10—convulsions, 2—croup, 2—debility, 2—diarrhea, 3—diphtheria, 1—dropsy, 4—dropsy of the brain, 2—drowned, 1—scarlet fever, 4—disease of the heart, 2—hernia, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 3—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 2—old age, 2—paralysis, 1—premature birth, 1—puerperal disease, 2—pyemia, 1—scrofula, 1—teething, 1—unknown, 4—whooping cough, 4.

Under 5 years of age, 34—between 5 and 20 years, 7—between 20 and 40 years, 11—between 40 and 60 years, 15—above 60 years, 14. Born in the United States, 55—Ireland, 17—other places, 9.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, JUNE 24, 1869.

[Vol. III.—No. 21.]

## Original Communications.

### CASES IN AURAL PRACTICE.

By J. ORNE GREEN, M.D., Physician to the Department for Diseases of the Ear, Boston City Hospital.

*Collapse of the Membrana Tympani from the Pressure of Cerumen.*—Mrs. T., aged 30, reports that for some years she has had an occasional deafness in the left ear, which she attributes to cold. At such times the ear felt "stopped," and this sensation and the deafness were often relieved by pulling or rubbing the auricle. One week ago, during a cold, she again became deaf in the left ear, and ever since she has had a disagreeable feeling of pressure on the left side of the head, without actual pain. The hearing of the right ear is slightly affected. On examination, both passages contain masses of cerumen; the watch is heard, r. 36", l. 3": the voice r. nearly normally, l. 4'. The syringe easily removed the mass from the right meatus, increasing the hearing for the watch to 48": from the left meatus a considerable quantity of cerumen was removed, and the hearing for the watch increased to 6", for the voice to 8'. Examination now showed the left meatus free, except close to the mem. tym., where there was a layer of dried cerumen, which obscured the view. She was directed to use an alkaline instillation for two days. The remaining cerumen was then easily removed, and the mem. tym. seen to be thickened in its dermoid layer and very much sunken, the manubrium lying nearly horizontal; the hearing was only slightly improved, although the ear felt clearer. Politzer's air-douche restored the membrane to its normal position, and she immediately announced a perfect restoration of the hearing and a sense of clearness and lightness in the head which she had not felt for many months. The watch was heard 24" on that side, and the voice equally well in the two ears. Was directed to inflate the ears by Valsalva's plan once a day for one week.

Various changes can be produced in the ear by a mass of cerumen, and any one who

has seen many cases will be exceedingly cautious in promising improvement merely from the removal of the offending mass, as it is often necessary to treat the ear for some time to remove the effects of the pressure and irritation. If the mass has been forced down upon the drum and has remained there for some time, the mem. tym. may, as in the preceding case, be forced inwards against the promontory and there remain, either by the cohesion of its mucous surfaces or by the contraction of the musculus tensor tympani and of the ligaments of the ossicula. In some of these cases the elasticity of the tissues is sufficient to restore the parts to their natural position; in such the patient does not get immediate relief from the removal of the mass, but a few minutes afterwards the hearing is suddenly restored with a snap as the two surfaces separate; in others the air-douche, either by the catheter or by Politzer's plan, is necessary to restore the natural position, and sometimes this has to be repeated a number of times to counteract the secondary contraction of the muscles and ligaments, especially in those cases which have been in this condition for a long time. Another effect of the irritation is a thickening of the dermoid layer of the mem. tym. and the development of large quantities of epidermic scales; these scales are sometimes packed in dense layers, and require to be softened before they can be removed, and even after their thorough removal may continue to be formed and thus again close the meatus enough to interfere with the hearing. We sometimes find after the removal of a mass of cerumen that the drum is very much injected and swollen, more so than the syringing could account for; and in one or two cases I have found an abnormal quantity of mucus in the tympanum, the irritation having produced a sub-acute catarrh of the middle ear; this sometimes comes on gradually, without pain; sometimes, however, causes a sharp, but short earache. In these cases the air-douche is of great and immediate benefit, the pain often disappearing after the first application.

Vol. III.—No. 21

[Whole No. 2156.]

*Granulations covering the whole Membrana Tympani.*—M. M., aged 5½ years, a pale, debilitated girl, with ulceration of the cornea, sent to me by Dr. Williams. Eighteen months ago, without known cause, her right ear began to discharge; this has continued without intermission; there is great itching in the ear, which keeps her awake at night, and causes her to continually scratch it; no pain, except on pressing the auricle. Some months ago used an astringent instillation for some time without benefit.

On examination the auricle is red, swollen, misshapen and in many places excoriated; the skin of the meatus is inflamed, covered with granulations, and so swollen as completely to close the passage; the whole surface exuding a thick and very offensive pus.

Watch heard only on being pressed against the auricle, and the voice only at about three feet. Throat healthy. Submaxillary glands enlarged.

It was directed that the ear be syringed three times a day with lukewarm water; small sponge tents were inserted every other day, and the meatus painted with a solution of nitrate of silver ʒi. ad ʒj. After the use of the tents for a week the swelling of the skin was so much reduced that the deeper parts could be seen; the mem. tym. was then found to be a mass of firm granulations projecting far into the meatus, and almost insensible to the touch, even when considerable force was used; all the anatomical landmarks were obliterated; the deeper parts of the walls of the meatus were also granular. By Politzer's air-douche no movement of the drum was observed, and nothing was felt by the patient. The dilatation of the meatus had improved the hearing slightly, the watch being heard at 1'.

The granulations were now touched every other day with the solid nitrate of silver, the syringing continued, and an astringent solution instilled after each syringing; at first a solution of acetate of lead (gr. vi. ad ʒi) was ordered, but afterwards nitrate of silver (ʒss. ad ʒi.) was painted on. A sponge tent was occasionally inserted to hasten the resorption of the thickened skin. Under this treatment the improvement was steady, the thickened skin of the auricle and meatus became normal and the meatus assumed its natural size, the granulations diminished in size, the discharge ceased, and the hearing improved. I then ceased treatment for some ten days, thinking that the parts might continue to improve, but

the discharge returned in small quantity, and the above caustic treatment was continued, the applications being made less frequently. As the mem. tym. became thinner, the air-douche by Politzer's method was used frequently, and at the end of three months the meatus had become perfectly smooth and normal, and the thickening of the skin had entirely disappeared. The membrana tympani was whole, of nearly normal thickness throughout, but slightly more opaque and more concave than natural; the hammer distinctly to be seen with the manubrium drawn inwards and appearing foreshortened; no discharge or feeling of discomfort. The hearing much improved, the watch 15" and a low whisper at twenty feet. One month afterwards all the parts remained in the same condition, no signs of a return of the trouble.

When the case came under observation, we had the results of a neglected otorrhœa to deal with; it was impossible to state what the original trouble had been, but it was probably either a diffuse external otitis or a myringitis, and, being neglected, the inflammation became chronic, and extended itself till finally the whole meatus was closed by the thickened and granular state of the walls. The case is interesting as showing what can be gained by persistent and appropriate treatment.

*Otitis Media, with Perforation.*—A. L., æt. 50, engraver. Some eighteen years ago had an eruption on head, face, in ears and nose, which he considered due to the fumes of white lead. At that time had a discharge from the left ear, which continued for several years and then ceased.

Two weeks ago was ill with what the attending physician said threatened to be typhoid fever, but after four days' confinement recovered. During this illness the throat and the track of the left Eustachian tube were quite sore, but he denies any severe pain in the ear. The ear very soon began to feel full, with a loud singing and whistling noise; all of these symptoms have continued without diminution, and he complains particularly of the noises, which prevent the mental application necessary in his work. About the time that the noises began, he noticed a slight discharge from the meatus. Now the left meatus contains a quantity of thin muco-purulent discharge, with much loose epidermis; wall of meatus excoriated in several places and red near the drum. The left membrana tympani uniformly swollen and red, so that none of the anatomical peculiarities, as manubrium and small process, can be seen.

Right membrana tympani has a crescent-shaped thickening in its posterior segment, but is otherwise normal. Watch, r. 48"; l. 3". Mucous membrane of throat and nose slightly inflamed. By Politzer's air-douche a distinct perforation-whistle is heard in the left ear, and he announced an increased clearness in the ear and a diminution of the noises. A chlorate of potassa gargle and an instillation of sulphate of zinc were ordered. One week later, reports the head much clearer, noises greatly diminished in intensity, discharge less. Watch, l. 6". Membrana tympani very much sunken, generally gray and opaque; along manubrium, however, still red and swollen; a perforation,  $\frac{1}{2}$ " in diameter, distinctly seen on the anterior segment. Politzer's air-douche brought the membrane out into its normal position; and immediately after, the watch was heard 15", the noises ceased entirely, and the feeling of pressure in the ear was wholly removed. To continue instillation.

Ten days after, the discharge had entirely ceased, the perforation had healed, so that not even the cicatrix could be seen, and the only trace of disease was a slight thickening of the membrane. The watch was heard at 48", equally in the two ears.

*Otitis Media, with Perforation.*—McN., æt. 9 months. An anæmic child; has for some weeks had a thick, purulent discharge from one ear; has been very irritable, and at night restless, continually scratching the affected ear. On examination, the meatus was swollen, excoriated from scratching, and filled with a thick, muco-purulent discharge, which was removed with the syringe, and the membrana tympani was then seen to have an oval perforation about  $1\frac{1}{2}$ " in its longest diameter, just below the end of the manubrium; through this perforation the air could be forced from the nostrils. Under the use of astringents, strict cleanliness and the occasional use of Politzer's air-douche, the discharge ceased, all signs of inflammation and irritation in the meatus disappeared, and at the end of three weeks the perforation had healed perfectly, not even leaving the relaxed cicatrix so often seen. It was impossible to test the hearing power on account of the youth of the child, but the ear appeared as well as the other.

*Otitis Media, with Perforation.*—Dec. 8th, 1868. E. S., æt. 6. A strong, healthy boy. Last summer had the measles, during which he suffered once or twice from earache. Three weeks ago, a mild scarlet fever; ten days ago, severe pain in right ear, which

lasted one night, and did not return till Dec. 5th, when the pain became very severe in right ear and right side of head. This continued about twenty-four hours, and then ceased on the appearance of a profuse discharge from the meatus. On examination, the membrana tympani was inflamed; so much swollen that no trace of the hammer was to be seen, and on the anterior segment was a perforation one fourth the size of the whole drum. Throat inflamed, tonsils enlarged and submaxillary glands swollen. By Valsalva's plan, there was a loud perforation whistle. Watch, r.  $\frac{1}{4}$ "; l. 60". A weak astringent instillation was ordered, and an iodine gargle, together with frequent syringing and Politzer's air-douche every other day. The pain in the ear returned two or three times, less severe than at first, but was always relieved by the air-douche forcing out the mucus and pus which had collected in the middle ear, and which caused painful pressure. The discharge gradually diminished, and the hearing improved after each air-douche, till, on the 17th, less than a fortnight after the perforation took place, the perforation was perfectly healed, the discharge had ceased, and the hearing had improved so much that the watch was heard 18", and the voice equally well in the two ears. Four months after, the hearing was perfectly normal, and there had been no return of the earache.

*Chronic Purulent Catarrh, with Perforation on one Side; Chronic Simple Catarrh on the other.*—July 10th, 1868. K. M. T., æt. 13, sent to me by Dr. Williams. A healthy, but not very robust girl. Five years ago, scarlet fever; since that time has had a purulent discharge most of the time from the left ear, and has been subject to frequent pain in right. During a cold in the head, to which she is particularly liable, usually quite deaf, but the deafness has always passed away with the cold; last February, however, during a cold, became deaf, and has so remained without any change. Now, there is a slight purulent discharge from the left ear; after its removal, the membrana tympani was seen thickened and perforated anteriorly and inferiorly; Politzer's air-douche, however, gave no perforation-whistle. Right membrana tympani drawn inwards, small process projecting, the anterior and posterior folds running from the small process very prominent. Throat generally red; follicles and tonsils much enlarged. Watch heard, right 3"; left  $\frac{1}{2}$ ". My ordinary voice, three feet. After Politzer's air-douche, r. 12"; l. 1". Was ordered to syringe the left ear

twice a day, to use an instillation of sulphate of zinc for that ear, and an iodine gargle.

July 13th.—Improvement in hearing lasted till last evening; now, watch, r.  $3\frac{1}{2}''$ ; l.  $1''$ . Discharge diminished in left. Last evening, after exposure to cold in an open wagon, earache in right for some time. Air-douche, which improved hearing to r.  $12''$ ; l.  $2''$ .

15th.—Watch, r.  $6''$ ; l.  $1\frac{1}{2}''$ . After air-douche, r.  $18''$ ; l.  $3''$ . Discharge from left much less.

17th.—Watch, r.  $12''$ ; l.  $2''$ . After air-douche, r.  $18''$ ; l.  $3''$ . Small quantity stringy, muco-purulent discharge syringed from left; perforation seemed to be cicatrizing from the edges. Tonsils painted with tincture of iodine.

21st.—Watch, r.  $12''$ ; l.  $2''$ . After air-douche, r.  $18''$ ; l.  $5''$ .

24th.—Watch, r.  $6''$ ; l.  $2''$ . After air-douche, r.  $16''$ ; l.  $3\frac{1}{2}''$ . Throat improving, and again painted with tincture of iodine.

27th.—Watch, r.  $14''$ ; l.  $2''$ . After air-douche, r.  $24''$ ; l.  $5''$ .

31st.—Air-douche again.

Aug. 4th.—After air-douche, watch, r.  $36''$ ; l.  $6''$ . Reports that discharge has ceased; but, on examination, left membrana tympani is covered with a purulent discharge, after the removal of which the perforation is found to be still smaller by growth from the edges.

8th.—Watch, r.  $36''$ ; l.  $5''$ . After air-douche, r.  $36''$ ; l.  $18''$ . Perforation only  $\frac{1}{2}''$  in diameter. Throat very much improved; superficial ulcerations almost healed, follicles reduced to natural level, tonsils not more than one quarter the size they were at first.

12th.—Watch, r.  $60''$ ; l.  $5''$ . After air-douche, r. same; l.  $18''$ . Perforation still smaller; now, merely size of a pin-hole, and membrana tympani less thickened. Throat looking well.

The instillation and Politzer's air-douche were continued occasionally for a month longer, at which time the discharge had entirely ceased, the perforation had completely healed, and the hearing was normal in both ears. Now, some seven months, the father reports that the hearing remains perfectly normal, equal in the two sides, that there is no discharge, and that "she hears as well as any child."

I have placed these cases together to call attention to the complete restoration of the drum, a fact which is too little known, the patient with a perforation being too often told that it is irremediable and should be

let alone. In the last case, the perforation had existed for nine years, and showed no disposition to heal; on the contrary, the other ear had become more and more affected, till, finally, the deafness had become constant, and yet the result was a complete cure of each ear. They all also show the beneficial effects of the air-douche to relieve the pain caused by the pressure of the collections in the middle ear, to cleanse the tympanum and to restore the membrana tympani to its natural position, and thus prevent the formation of adhesions and clumps of mucus, which would interfere with the vibratory power of the ossicula; in the last case, it is certain that nothing else could have saved the child from permanent and extreme deafness. In the two following cases, the drums had been so completely destroyed that nature could not repair the loss; and yet by a simple mechanical contrivance it was possible to improve the hearing so much that neither patient would have any great difficulty in the ordinary affairs of life.

*Complete Destruction of both Membrana Tympani; an Artificial Drum applied with benefit.*—Dec. 21st, 1868. I. C., æt. 10. Has always been delicate till the last two years, when her general health has much improved. Once, when a baby, had a slight otorrhœa of short duration.

Six years ago, had a very severe scarlet fever, and during it severe pain in both ears, followed by a profuse discharge from both. The otorrhœa ceased in the left after one year, but has continued in the right without intermission. Two weeks ago, had severe pain in left ear for a short time, followed by discharge, but the discharge ceased in a few days. Is subject to nasal catarrh. The deafness, which was apparent soon after the beginning of the disease, has remained about the same ever since.

There is a decided hereditary tendency to catarrhal affections of the ears, the father, mother and two aunts on the mother's side being deaf.

On examination, the right meatus contained a quantity of muco-purulent discharge and some loose epidermis; the left one, flakes of epidermis so tightly packed that they required to be softened before they could be removed. Both membranae tympani have been almost completely destroyed; on the right side, the hammer is seen very much drawn in, and on each side of it is a narrow strip of membrane which passes round about one third of the tympanic ring, the only remnant of

the drum; beyond this the membrane of the tympanum is seen, red and swollen. On the left side no trace of the membrana tympani is seen, but a thin cicatrix has formed from the promontory to the anterior edge of the tympanic ring; the ossicula not to be distinguished. The right Eustachian tube was impervious, the left slightly pervious. The watch was heard on the right side only on contact, on the left only very faintly on being pressed firmly against the ear; the tuning fork on the forehead about equally in the two ears; my ordinary voice only 3' in the right, the best ear.

Frequent syringing and astringent instillations were ordered for the right ear, in order to diminish the swelling and check the discharge; after their use for two or three weeks, the swelling was so much reduced that air could be forced through the Eustachian tube by Valsalva's plan, and the discharge had begun to diminish. At the end of two months, the Eustachian tube being perfectly free and the discharge having ceased, I applied an artificial drum in the right ear. First testing the hearing, I found that the watch was heard 1", the voice 5' on that side. I then cut from a piece of sheet rubber, about one third of a line in thickness, an oval somewhat smaller than the natural drum; through the centre of this a thread was passed, and the thread passed through a silver tube and drawn tight, so that the bit of rubber was held firmly against the end of the tube. The artificial drum was then passed in till it rested against the hammer and remnant of the natural membrane, and occupied nearly the position of the latter. The tube being now withdrawn the rubber was left in this position, and there was found to be an immediate and decided improvement in the hearing. The watch was heard some 5", but the voice more than 25", and all external noises exceedingly loud.

She was furnished with a tube, and instructed in the application of the drum, so that after a few trials she could get it into very fair position herself; was then directed to apply it daily, gradually increasing the length of time that it was kept in, till it could be borne all day. A few days after, she reported that while the artificial drum remained in she "could hear everything"; she found some little difficulty in adjusting it herself, but I encouraged her to persevere, and have no doubt that she will soon learn to adjust it properly and quickly.

*Complete Destruction of both Membrana Tympani; Application of Artificial Drums*

*with great benefit.*—II. P. T., æt. 29. A fine, healthy man. When 4 years old, scarlet fever, and ever since a continuous, offensive otorrhœa on each side. On examination, the right membrana tympani is entirely destroyed; the hammer remains, very much drawn in, and just below it the mucous membrane of the tympanum is red, irregularly swollen, and in one spot a white mass of calcareous deposit is seen and felt on it; right Eustachian tube pervious. The left ear exhibits almost the same appearances, except that the membrane of the tympanum is perfectly smooth and of a light pink color; no remnants of the membrana tympani to be seen; by Valsalva's experiments, there is a distinct perforation-whistle. The watch is heard 1" in each ear; the voice about 5'.

Under the use of an iodine instillation, the swelling was so much reduced in the right ear that he could blow air easily through it; the otorrhœa was diminished by the astringent, and finally checked by the use of talc.

Artificial drums were then applied to each ear in the same way as in the preceding case, and to his great gratification his hearing was greatly improved, so that he could easily carry on a conversation with a person twenty feet distant. He was taught to introduce them himself, and before he left for his home in the west could adjust them easily, and with great benefit to the hearing.

#### ON THE USE OF RUBBER CLOTH IN THE TREATMENT OF SKIN DISEASES.

By Prof. HEBRA, of Vienna.

Translated for the Journal from the Archiv für Dermatologie und Syphilis. By JAMES C. WHITE, M.D.

DURING my last visit to Paris (September, 1867) Prof. Hardy told me that he frequently used vulcanized rubber cloth (*toile caoutchouée*) in the treatment of eczema with good effect, applying it "*pure et simple*" upon the affected parts. As there happened to be no case at the time in Hardy's clinic to illustrate its use, I was obliged to be satisfied with the information alone, and to undertake an independent examination of its effects on my return. This I have been doing for the last year, and would now make known the results of such treatment.

It was to be expected *a priori*, considering the impermeability of caoutchouc to watery liquids, that the evaporation of the volatile secretions of the skin would be prevented, and their collection in the form of

drops between the rubber cloth and the skin favored by its application. Now as every liquid, including the normal secretions of the skin, tends to soften and macerate the epidermis by long contact, it was principally the therapeutic effect of such maceration that was to be looked for here. It was, therefore, a continual warm bath in the individual's own cutaneous secretions which was used upon the affected parts, and it might be expected the results would be similar to those obtained by the "continual bath."<sup>\*</sup>

This supposition, however, has been only partially realized, and principally when pure caoutchouc has been used instead of the vulcanized cloth. With the latter there must also be taken into account the materials used in the process of its manufacture, especially the sulphur; so that wrapping a part in vulcanized rubber cloth, to continue the above comparison, might be likened to a continual warm sulphur-bath.

In using this comparison, however, it should not be forgotten that the normal cutaneous fluid secretions differ widely from common water, and moreover that the acids and salts they contain, as well as the fatty matters which are readily converted into the fatty acids by the rapidly ensuing decomposition, exert on long contact with the skin a very different action from ordinary or sulphur water, and that on this account these elements cannot be disregarded in judging of the therapeutical action of caoutchouc. From this point of view as well as from that of experience, which teaches that morbid appearances are often produced upon the skin by the action of its decomposed secretions, I was not disposed to expect any very favorable result from its employment. But on the other hand, as it is well known that the same means which under some circumstances will produce eczema, will under others cure diseases of the skin, I abandoned this overhasty criticism and awaited the results of a careful trial. How far my opinion was justified by the result, will be seen by what follows.

But before mentioning the affections and the individual cases treated by the caoutchouc, I will first describe more particularly the material employed. The rubber cloth (*toile caoutchouquée*) consists of ordinary cotton, which is first coated with a solution of caoutchouc and then submitted to the

process known as vulcanizing. This consists in sprinkling the stuff with a mixture of caoutchouc and sulphur, and exposing it to a high temperature under a pressure of sixteen atmospheres. The material obtained in this way is gray, black or of any other desirable color, flexible, impermeable to watery fluids, smooth and polished on one surface, dull and rough on the other, and smells of caoutchouc and sulphur. Oil as well as all fats, and alcohol, dissolve this layer of caoutchouc, thus destroying its desirable qualities and rendering it useless for the purpose in question. It can be worked like any other cloth, that is, be cut, sewed, and its surfaces be made to adhere by means of a cement containing caoutchouc. These properties led me not only to apply it simply, as Hardy advised, to the affected parts, but I had various pieces of clothing made of it, for instance, caps for the head, bags in which to envelope various regions of the body, gloves, stockings, and finally, entire drawers with and without feet attached, as well as shirts and blouses. Besides these, I had some of the ordinary gum-elastic (not vulcanized) made into bandages and gloves, and convinced myself that this might also be used.

As to the diseases in which I employed it, it will be readily understood that its effect was tried not only in eczema (as Hardy advised), but in many other affections of the skin, especially in cases where it was desirable to soften and macerate dry and hard masses of epidermis, as in psoriasis, ichthyosis, tylosis, pityriasis, &c. In burns of mild degree, also, in variola, and in some cases of pruritus cutaneus in old people I tried the rubber garments, and found especially favorable results to follow.

After this general explanation, we will now describe the individual cases treated by the caoutchouc method, beginning with those of eczema. We have submitted every variety of this affection, from *E. squamosum* to *E. impetiginosum*, to this treatment, making use either of closely applied pieces, roller bandages, or the whole garments. In every case the smooth side of the vulcanized cloth was laid in contact with the skin, from which the collections of morbid products, the scales, crusts, &c., had been previously removed, although in some cases the cloth was applied for the sake of experiment above these. On removing the cloths at the end of 12 or 14 hours they were found very moist, often entirely soaked through, and the fluid, which had collected on the surface of the skin in considerable quantity, of a pene-

<sup>\*</sup> The "continual bath" here spoken of is a method introduced by Prof. Hebra, and used in drum, a fact witnessed and extensive burns. The patient with on water day and night constantly, for two or three months.—TRANSLATOR.



trating smell, worse even than that of the "stinking foot-sweat." The skin itself, however, when cleansed from the diseased products thus softened, appeared odorless and only reddened, more or less robbed of its epidermis, moist and shiny. The sensations of the patient during their application were not at all unpleasant, there being no pain or itching. After their removal, itching generally came on, and, unless they were renewed within a half hour or so, a feeling of contraction and pain also, so that the patients longed for their immediate re-application. If the treatment was continued in this way, the whole series of symptoms gradually diminished—the moistening, redness, itching and pain—and in many cases the cure of the eczema was seen to be complete in the course of two months.

But as it is known that under other treatment the cure of eczema may be effected in this period of time, the question arises what advantage the caoutchouc method offers over others, such as by ung. diachyli, tar, zinc, sublimate, &c.

The answer must be, that, although in general no excessive advantage can be attributed to the caoutchouc, nevertheless there are cases in which this new remedy can be used with especial profit. I refer here particularly to eczema of the hands, fingers, flexures of the joints, scrotum and feet, in which the application of salves, &c., is not only attended by much inconvenience to the patient, but in which also the caoutchouc preparations are able to afford a much more speedy relief to the pain produced by the fissures, inasmuch as such parts can be kept constantly moist by the easy application of the gloves, cots, bandages, suspensories and stockings employed. Although, therefore, no new panacea has been introduced into dermato-therapeutics by the use of caoutchouc in the treatment of eczema, it must still be regarded as a very *valuable addition to our means of cure*, and all the more as it does not prevent the helping use at the same time of other known remedies. Thus in many cases the cure of eczema is powerfully assisted by the simultaneous use of schmierseife, baths, donches, tar preparations, &c., and these latter in turn made more serviceable by the application of the caoutchouc cloths.

Of the other affections of the skin it was especially the hardened concretions of epidermis in pityriasis, xerosis, and psoriasis palmaris, as well as in tylosis plantæ pedis, in which caoutchouc gloves and stockings were successful in easing the pain of their painful cracks, and causing them to heal even

by prolonged use. In some cases of burns of the second degree upon the hands and face we tried the treatment by persistent application of the caoutchouc cloth, and it succeeded perfectly, although I cannot concede to it any advantage over cold or warm water fomentations or applications of ordinary cerate, oil and lime-water, &c. In order to soften the epidermal coverings of the efflorescences in variola, so as to favor their discharge and the absorption of their contents, I tried similar applications of the rubber cloth, enveloping certain of the extremities in rubber bags, and changing them every 24 hours in order to cleanse them and the skin. The course of the pocks was not in the least altered, but the maceration of the thick epidermis of the planta pedis and vola manus thus effected materially helped in preventing the pains which so frequently occur in these localities, and on this account I can strongly recommend this method in variola.

But it was in four cases of general itching of the skin that this treatment was most beneficial, which, although partially associated with eczema, did not occur upon the eczematous parts, and therefore were properly regarded as pruritus cutaneus senilis (prurigo senilis aetiorum). The patients were four old men between 65 and 75 years, one of whom only I treated in the hospital, the other three (Prince F. S., Count Cz., Baron E.) in private practice in connection with their attendant physicians. With all four I had a complete suit of rubber clothing made and worn next the skin, at first day and night. Morning and evening the garments were either changed, or where, as in the hospital, only one suit was provided, this was removed for a short time, cleansed and again put on. The effect showed itself in each case the first day even; perspiration became more abundant, the itching and tension of the skin entirely ceased, and sleep, which had been disturbed, returned. All the patients expressed themselves as much relieved, and submitted with great pleasure to the continued treatment. After the lapse of some weeks the rubber clothing was worn only either during the night or for an hour at a time during the day, until finally it was removed after complete cure in each case. The accompanying eczema was all the more easily treated by the ordinary remedies (tar preparations), as the coverings modified and mitigated the odor as well as concealed the stain they produced. To prevent misunderstanding, let me again draw attention to the fact that the caoutchouc bandages

were of themselves sufficient to allay the distressing itching, which compelled the patients to scratch and deprived them of sleep, and that the tar preparations were only used when sooner or later the ordinary symptoms of eczema showed themselves.

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

FEB. 8th.—*Very slow Pulse, connected probably with Disturbance of the Digestive Functions.*—Case reported by Dr. JACKSON.

The patient was a healthy looking farmer, 53 years of age. For the last twenty-five years or more he had suffered from costiveness, but he had been in the habit of using laxatives, and his general health was sufficiently good. During the last eight years his appetite has been very strong, and it had always been more or less so. Fulness at epigastrium after eating; much flatulence; but no bad taste, acidity, nor rising from the stomach. Sense of weakness, with giddiness, so that he would sometimes fall, unconscious, for a minute or two. Skin rather dry. Urine diminished when he is worst. During this same time the pulse has been slow, often 20 beats in a minute, and sometimes, though very rarely, 16. Once he counted only 6 beats in half a minute; and this was the lowest, so far as observed. Not unfrequently it would rise to 60, or even a little higher; and it sometimes intermits about every fourth beat when it is rising. In character the pulse, he says, is generally full and forcible. Very rarely any pain about the heart. No palpitation. Feels the weakness above referred to, with dyspnoea, on going up hill; and the action of the heart is then increased, but without an increased frequency of the pulse. On examination, the impulse of the heart was not unusual. Sounds muffled and distant, with perhaps a slight systolic soufflé over the ventricles. Pulse 30, moderately full and regular, soon after coming in from a walk; and the same when he had been resting for about half an hour. A few days afterwards, Dr. J. saw this man again. He was then feeling better, and the pulse was rather quicker, and with an occasional intermission. Says that he is quite nervous, though he did not appear so, and that he is still able to do some work. His hands and feet are cold, and particu-

larly when the pulse is very slow; and he is pale when he has his worst attacks.

FEB. 8th.—*Internal Strangulation; Sphacelation.*—Case reported and specimen shown by Dr. J. N. BORLAND.

An Englishman, mason by trade, entered the City Hospital Jan. 24th. He was 40 years of age, and twenty years before had had an attack of what was called "stoppage of the bowels," and recovered after ten days' illness, having ever since been a thoroughly healthy man. Jan 17th, being perfectly well, he ate moderately of boiled beef, and soon after was attacked with severe pain in the abdomen, attended with obstinate constipation and vomiting. Purgatives were given without avail, and blisters, leeches, &c., used externally, but without relief to the pain, till the administration of an enema on the fourth day caused three small dejections, and the pain diminished. His abdomen was much distended, when first seen, and tender on pressure over the epigastrium; there was frequent vomiting; no appetite; great thirst. Beef-tea and brandy enemata were ordered, sinapisms to pit of stomach, and cracked ice for the thirst. During the next three days there was some improvement, less vomiting and less tenderness and distention of the abdomen; there was no dejection, save once a small, insufficient one after an enema of assafoetida.

On Jan. 28th the bad symptoms returned; the pulse became high, the skin hot, and there was delirium, which continued till his death, Jan. 30th. The pain in the abdomen and distress were relieved by hypodermic injections of morphia; the matters vomited were chiefly yellowish or greenish fluids, never any stercoraceous matter.

On dissection, a small, tough, fibrous band was found connecting the intestine and mesentery, about nine inches above the cæcal valve; through the loop thus formed four or five inches of the intestine had passed and become tightly strangulated. Sphacelation was the result, and the intestine had entirely broken through in two places. There was lymph upon the surface of the strangulated intestine to a small extent, but there was no peritonitis, as shown by effusion or fresh adhesions, the surface of the intestines looking only dry and gray in color, with engorged vessels. No other old adhesions were detected.

Dr. JACKSON said this was the first case he had seen of internal strangulation, how-

ever tight, in which there was anything like sphacelation.

MARCH 8th.—*Pleurisy; Jaundice; Enlargement of the Liver.*—Dr. FIFIELD reported the case.

J. S., aged 64, taken sick on Friday, Jan. 8th, 1869. Sent for a physician on the following Tuesday, on account of sputa very slightly tinged with blood, since the previous Sunday. He was found with a pulse of 140, occasional slight breast-pang, slight cough, raising a little scarcely tinged sputa.

Wednesday, the next day, declared himself better, but the pulse remained the same. He was now sweating profusely, deeply jaundiced, raising quantities of thin mucus colored with bile. Percussion dull over nearly whole of right back, normal in left. Auscultation revealed marked bronchial respiration, with ægophony over whole right back, normal respiration in the left.

Thursday.—Pulse 120. Expectoration less; jaundice less; rather more dyspnoea; profuse perspiration; urine scanty, no motion of the bowels.

Friday.—Pulse 140, sweating; more feeble; has had one dejection. Auscultation and percussion same as yesterday. Some crepitus in lower third of left back.

Saturday.—Rather less jaundice; complaints of no pain; no expectoration, slight cough. Pulse 140, skin cold and sweating; a crepitus as of air churned through foam audible at some distance from patient. No pain on pressure over liver. Auscultation shows diminution of bronchial respiration, returning normal respiration faintly heard. Lower third of left back reveals coarse crepitus; percussion dull, slight delirium.

Sunday.—Pulse 140, skin cold and sweating; brown, dry tongue; auscultation shows large crepitus over left back; less dullness on percussion; diminution of respiration in lower third of left back; labored respiration, great efforts to breathe, but not often repeated. Died at 2 o'clock.

Monday, 18th.—Autopsy. Rigor mortis well marked. Skin deeply jaundiced, more than in life. Right chest:—Lung healthy, no effusion, adhesion to costal pleura throughout by soft recent adhesions. Also adherent to diaphragm over liver, and there greatly congested. Pericardium healthy with two ounces of serum. Heart fatty, otherwise healthy. Left chest:—Contained purulent serum one pint; lung not much adherent; recent lymph could be brought up in long strips on sponge. Lung appeared nowhere solid as in pneumonia.

Liver large, smooth, and sufficiently

healthy; left lobe reaching into left hypochondrium; edge of right lobe reaches well below false ribs, but yet cannot be felt from the outside. Gall bladder filled. Kidneys not examined, test of urine being considered sufficiently satisfactory.

Reflections in this particular case are:—

1st, Bronchial respiration heard within three days from commencement of illness, with sputa scarcely tinged, is indicative of pleurisy.

2d, Acute pleurisy may exist without breast-pang, if effusion comes on rapidly.

3d, Jaundice is a bad augury. I do not remember ever to have seen it present in affections of the left lung or pleura, but have seen it appear, when, in affections of the left lung or pleura, the right lung or pleura has been secondarily attacked.

From the autopsy it would seem brought about by adhesion of the lung to the diaphragm over the liver, from sympathy in contiguity in fact.

At the time of the autopsy, I had heard nothing of gastro-duodenal catarrh, hence no examination of those parts was made.

This case seems remarkable, moreover, for the rapidity with which the processes of the disease were carried through. The patient is attacked on Friday, no particular pain, merely feeling ill. On Tuesday, bronchial respiration is heard in right pleura, denoting effusion. On Friday effusion begins to be absorbed, and returning normal respiration is heard in right lung. On the same day disease begins in the left pleura. On Saturday effusion takes place. On Sunday effusion begins to be absorbed, lymph being deposited on the walls of the cavity in coherent masses.

It seems probable that could life have continued, the effusion would have been as rapidly absorbed and adhesion been as complete as in the right pleura. I cannot imagine the crepitation so distinctly heard to have been a friction sound, but, although no expectoration was present, it must have been of the character of a flux from the bronchial mucous membrane, and death must have taken place from an inability to discharge the same—in fact, a capillary bronchitis. Or perhaps it might be spoken of as a paralysis of the lungs, such as we might say produces the well-known death rattle in the trachea.

I hope it will be considered that these reflections apply only to this particular case.

MARCH 22d.—*Recovery from a Wound of the Intestine.*—Dr. JACKSON read a manuscript report of the case by A. A. Surgeon R. G. Jennings, U.S.A., and that was loan-

ed to him by Dr. Wm. H. Hills, of Foxborough. The patient was a soldier who was stabbed by one of his comrades with the small blade of a pocket-knife Feb. 20th, 1866. When Dr. J. saw him, just after the accident, there was collapse, with a protrusion of about two feet of the intestine. It was necessary to enlarge the wound considerably, and there was then found a wound in the intestine, fully  $\frac{3}{4}$  of an inch in length. This occasionally bled freely, though there was no discharge of feces; and, two interrupted stitches having been taken, the ends were clipped close to the intestine, and the mass was returned into the abdomen. On the 25th of March the external wound had entirely healed, a photograph (which was shown to the Society) was taken, and the man was to return to duty in a few days.

Thus far the case, of which the above is an abstract, was published in the *Chicago Medical Journal*, June, 1866. In a letter, quite recently received from Dr. J., he states that after the injury the man had frequent pains in the abdomen, with great prostration; and four months afterwards, on lifting a heavy weight, he felt a "quick snap," fainted at once, with profuse perspiration, and the abdomen became swollen, tender and painful. These symptoms, however, which Dr. J. attributed to a separation of the adhesions that had probably formed, soon passed away; and when he saw him in the spring of 1868, he was perfectly well.

MARCH 22d.—*Singular Mark on the Hand of a Pregnant Woman; appearing at the beginning of successive Pregnancies, and disappearing soon after Delivery.*—Dr. J. P. REYNOLDS reported the case.

L. X., aged 27, confined for the third time on the 27th of February, had on the dorsum of the right hand a nearly circular mark about an inch in diameter, scarcely if at all elevated, of pink color, looking as if formed by a ring of slightly enlarged capillaries; near the knuckles of two of the fingers of this hand were isolated points of similar character. At the beginning of each pregnancy this mark has made its appearance. After every labor, it has in the course of a few days faded and then wholly disappeared. It has become more distinct with each successive pregnancy, the isolated spots showing themselves only during the last.

The patient states that when labor is at hand, the color of the mark deepens to a dark purple. When about seven and a half months advanced in the last pregnancy, she had a dangerous fall down a flight of

stairs, and observed for a day or two following the darkening of the spot above described. The details of this account are confirmed by the husband, and as the parties are people of intelligence, I see no reason to question the accuracy of their statement. I myself witnessed the fading of the mark after the last delivery. Three weeks later the isolated spots could not be seen, and the larger mark was rapidly growing indistinct.

The woman has lost two brothers by phthisis, and is a person of slender make, with light hair and a delicate, irritable skin.

Trifling as this fact is, it seems to be worthy of record. Similar occurrences have been observed by others.

MARCH 22d.—*Anatomy of Prurigo.*—Dr. HASKET DERBY read the following report translated from the transactions of the Imperial Academy of Sciences in Vienna.

*Section of Mathematics and Natural Sciences.*—At a meeting held February 18th, Professor Biesiadecki presented a paper by Dr. Richard H. Derby. Subject, "The Anatomy of Prurigo."

The author arrives at the following results:—

1st, In prurigo there is uniformly a disease of the hair. From the outer root-sheath projects a growth, varying in length, consisting of epithelial cells, and closely united with the root-sheath. It insinuates itself between the muscular fibres of the *arrector pili*.

2d, The *arrectores pilorum* attain an unusual development. Through the increased traction these exert on the hair result, on the one hand, a more vertical position of the hair (goose-flesh); on the other a hernial protuberance of the inner wall of the hair follicle and the outer root-sheath.

3d, A serous exudation takes place in the vicinity of the diseased hair, infiltrating the tissue of the corium and the papillæ, and making its appearance as a clear or slightly bloody drop, on puncturing the papule.

This discovery, moreover, explains the absence of the papules of prurigo in places devoid of hair, such as the hollow of the hand and sole of the foot; and their infrequent occurrence in places almost destitute of hair, such as the flexure of the extremities.

This paper was referred to a commission.

MARCH 22d.—*Syphilitic Stricture of the Esophagus.*—Dr. SINCLAIR reported the case.

W. B. T., æt. 39, teamster. Admitted into City Hospital Dec. 4th, 1868.

*History.*—Has no tendency to hereditary disease. Habits rather intemperate. With the other diseases common to childhood, had scarlet fever, which entailed some deafness, increased of late. While in the army, in the South, had intermittent fever and afterwards acute rheumatism. Had not been so strong since, though able to work regularly until three weeks before entrance, when he began to have dysphagia and regurgitation of food, with a sense of constriction about the gullet, which had increased so as to oblige him to take food and drink in the smallest quantities, slowly and at intervals. Had a poor appetite, did not sleep well, lost flesh, easily fatigued, nervous. Tongue and skin natural. Bowels regular. Pulse 80.

On examination of the throat, the posterior fauces were found in a state of chronic inflammation. Mucous follicles enlarged. No ulceration. Thoracic organs healthy.

Was ordered liquid diet, and five drops of aq. regia three times a day. Two days later, he reported himself as able to swallow better, having increased appetite, and complained chiefly of weakness. Five days after entrance, dysphagia and throat the same. Was directed to inhale atomized sulphurous acid once a day. On Dec. 12th condition of things not improved, and suspecting organic disease, Dr. Cheever was requested to see the patient. A small probang was passed, and a constriction of the œsophagus found, about two inches below its entrance. At the same time, the probability of a history of specific disease in the case was suggested to the house-physician. The stricture conveyed a sense of considerable extent and of elastic firmness, grasped the probang tightly in passing through it, and offered a good deal of resistance in the withdrawal of the instrument. It was subsequently ascertained, on careful inquiry, that the patient had had a sore on the penis two and a half years previous, and an eruption on the skin a year later, for which he had received medical treatment. The following treatment was accordingly instituted:—

R. Pot. iodidi,  $\zeta$ iv.;

Hyd. bichloridi, gr. i.;

Aque,  $\zeta$ iv. M.  $\zeta$ i. 3 t. d.

And probang to be passed through stricture twice daily.

Dec. 19th.—Improving.

21st.—Stricture readily overcome. Swallowed meat yesterday for first time since entrance. R. Quin. sulph., gr. i. 3 t. d.

25th.—Ability to swallow solid food increases.

Jan. 4th, 1869.—Continues to improve. Hears better. Appetite good.

5th.—Discharged, at his own request.

Dr. Langston Parker relates two cases of syphilitic stricture of the œsophagus in his work on Syphilitic Diseases, London, 1860; one occurring in a young woman, another in a man. The woman entered the Queen's Hospital, Birmingham, under the care of Mr. West, in May, 1868, with secondary phagedena of the pharynx, and afterwards, during the absence of Mr. West, was attended by Dr. Parker. She had previously suffered from secondary syphilis. Examination of the throat revealed the cicatrices of a large ulcer on the posterior wall of the pharynx, and by depressing the tongue deeply a portion of an ulcer, which appeared to extend downward into the œsophagus. With considerable difficulty she could swallow cider, but could not swallow milk or beef-tea. There was complete dysphagia occasionally, which continued at one time for thirty-six hours. Every attempt at passing bougie, catheter or probang into the gullet failed. She died exhausted.

*Post-mortem Examination.*—"The upper part of the œsophagus for about four inches was found much dilated; its mucous membrane thickened and marked by spots having the appearance of recent cicatrices. At this distance from the upper end it was suddenly contracted, and terminated in a narrow canal which would barely admit a No. 4 catheter. The contracted portion, which was about  $2\frac{1}{2}$  inches in length, was formed by the thickening of mucous membrane and fibrous bands and bridges, having very much the appearance of an old stricture of the urethra. Below this tract the œsophagus continued perfectly healthy into the stomach."

The other case was that of a private gentleman, under the care of Dr. Parker, and who suffered many years from syphilis and had ulceration of the pharynx. "He was hoarse, tormented with cough and hawking up of frothy mucus mixed with blood; had great pain and difficulty in swallowing." On examination, the whole of the back of the throat was found intensely red; it looked like an old red cicatrix, with here and there white, hard spots disseminated through it; in places, superficial ulcers existed; the whole mucous surface appeared destroyed. He was much emaciated, and looked like a man laboring under organic disease of the lungs; the latter, however, with the windpipe, were healthy. Soon after, the patient left on a foreign voyage, and died, exhausted, on the passage. It is

not recorded whether the gullet was examined in this case; but it is fair to assume, with the author, that this also was a case of syphilitic stricture of the œsophagus.

Follin, in vol. i. p. 696 of his *Traité Élémentaire de Pathologie Externe*, Paris, 1865, says that the greater part of writers on the subject of syphilis say nothing concerning these strictures, or, if they do, it is to deny their existence, and quotes Langston Parker and West as having met with, the former one case, and the latter two cases, of syphilitic stricture of the œsophagus. In his graduation thesis, *Des Retrecissements de l'Œsophage*, Paris, 1853, he quotes three cases which appear to come under this head: the first from Ruysch; the second from Haller, who speaks of having successfully treated a case of stricture of the œsophagus by the use of mercurial pill; the third is an observation of Paletta, who, in a work entitled *Esercitations Pathologiques*, published in 1820, mentions a dysphagia which came on after the suppression of a leucorrhœa and the disappearance of a papulous eruption. But Follin observes that this case, like the others, is very doubtful. Since then, he goes on to say, that he has himself observed two cases of œsophageal dysphagia, which he was able to attribute clearly to syphilis. In one of them there existed a psoriasis of the palm of the hand, and the patient was cured without the use of a probang; in the other the lesions were more profound and the cure incomplete, for there obtained, without doubt, cicatrices, which were ameliorated, but not cured.

Lancereaux, in his elaborate and comprehensive work on *Syphilis*, Paris, 1866, remarks that it is not proved that the oldest writers on syphilis recognized this alteration. Severinus, one of the first, makes mention of syphilitic ulcerations of the œsophagus and the trachea—"Cultro anatomico tradita eadavera variorum syphilide extructorum exhibebant exulcerationes, tum in œsophago, tum in trachea." Rhodius reports a case of œsophageal lesion which he might possibly be right in attributing to a syphilitic origin. A case observed by Daniel Turner (recorded in a practical dissertation on the *Veneral Disease*, 1732), and two more by Carmichael (*Essay on the Veneral Disease*, 1814), are not more conclusive than the preceding. Wilks (*Pathological Anatomy and On the Syphilitic Affections of the Internal Organs*, 1863) recognizes the existence of syphilitic stricture of the œsophagus. An anatomical specimen in the Museum of Guy's Hos-

pital (No. 1784-95) shows, at the point of union of the œsophagus and pharynx, a constriction which had followed a syphilitic ulceration. Virchow describes a stricture of the same kind.

Finally, with regard to the state of things existing in the case observed by myself, it may be inferred that from the manner in which the stricture yielded to treatment the obstruction was caused by a submucous infiltration or gummous tumor, which, if allowed to degenerate, would have formed an ulcer, with subsequent cicatrization and contraction, defying, perhaps, every means of cure.

The short time—three or four weeks—that the dysphagia existed, and the speedy manner in which the case ameliorated after its true nature was ascertained and the proper treatment instituted, show very conclusively the syphilitic character of the stricture.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, JUNE 24, 1869.

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### NOTES FROM FOREIGN JOURNALS.

*Subcutaneous Injection of Ergot for Aneurism.*—We learn through the *Union Médicale* that Professor Langenbeck, recognizing the hæmostatic property of ergot as proceeding from contractile action upon unstriped muscular fibre, has used the drug successfully in aneurism. He reports two cases to the Medical Society of Berlin. One was a *sub-clavicular* aneurism, the other aneurism of the radial artery. In the first case the Professor injected under the skin three (3) centigrammes of aqueous extract of ergot, in the following mixture:—*Extrait de Bonjean*, 2.5; spirits of wine and glycerine, aa 7.5.

He repeated the injections every three days, increasing the dose gradually, till between the 6th of January and the 17th of February, two grammes had been used.

In the second case fifteen centigrammes of the preceding solution were injected, and the next day the tumor had disappeared. The injections in both cases were made under the skin covering the tumors.

*The Perniciousness of Iron Stoves again.*

—We learn from the *Gazette Hebdomadaire* that on the 3d of May, at the *Académie des Sciences*, General Morin read a summary of various elaborate experiments as to the effects of heating apartments by iron stoves, and also a statement of results. Besides the transmission of carbonic oxide through heated iron, it was found that in rooms warmed with iron stoves the carbonic acid naturally contained in the air, and that produced by respiration, is susceptible of decomposition, and of giving rise to development of carbonic oxide. It was also ascertained that the direct action of the oxygen of the air on the carbon of the cast-iron stoves heated to redness evolved carbonic oxide. It was concluded that heating apparatus of iron without linings of fire brick or of other materials—which linings prevent them from becoming red hot—are dangerous to health. These are but a few, out of many points brought out in the paper as reported in the *Gazette*.

*Pathological Physiology of Icterus.*—A sketch of the Thesis of M. Laborde, on the Pathological Physiology of Icterus, in the *Gazette Hebdomadaire*, opens with the statement that the bile is formed exclusively in the acini of the liver, as we now know positively; and that none of its elements, the principal of which are the choleic and cholic acids, pre-exist in the blood, with the exception of the salts and the fatty matters. This idea puts far out of sight a theory, which is among the oldest, and which attributes certain forms of icterus to a direct transformation of the blood into bile.

We are, at the present day, forced to consider icterus as the result of the diffusion over the economy of a secretory product turned aside from its physiological destination and from its natural channels—a diffusion involving troubles sometimes very grave, by reason of the toxic properties of certain of its constituent elements. In that respect icterus resembles diabetes and uræmia.

In the absence of sufficient data for a different arrangement, we are obliged to abandon attempts at a purely physiological division, and to place the forms of icterus in two categories. In the first are ranked

the cases of jaundice caused by appreciable lesions; to the second, are consigned those of which we have not as yet penetrated to the cause, and which no alteration of the solids can explain. The first category comprehends all the instances of jaundice produced by mechanical obstacles. The bile is partly or wholly absorbed, by the veins and lymphatics; and this absorption requires for its accomplishment from two to forty-eight hours (experiments of Saunders and Frerichs). By the side of mechanical obstacles which are well known—such as tumors, calculi, &c.—are placed passive hyperæmia, which brings about compression of the biliary canaliculi by means of the dilated capillaries (Frerichs); diminution of the lateral pressure of the vena porta; inspissation of the bile; a plug of mucus, &c.

Idiopathic (*essentiel*)\* icterus is that which, consequent upon a nervous shock, has, for its less remote cause, spasm of the biliary ducts; or paralysis of them; or passive congestion. The idea of spasm in this connection is now pretty much abandoned. Paralysis of the ducts leads to *polycholia* and then to jaundice. Lastly, passive congestion of the liver indirectly produced through the influence of the pneumogastric nerve (Séc) would produce jaundice by the mechanism above alluded to.

*Male Fern vs. Tænia.*—Prof. Christison declares the ethereal extract of male fern better than kousso or any other remedy for tænia. He has never failed with it. He gives it in doses of from 18 to 24 grains in syrup or emulsion; and repeats it at the end of a month or six weeks by way of making sure of his work. The worm never comes away alive.

*Cutaneous Diseases.*—M. Guibout asserts, that cutaneous diseases are not merely disorders of the skin, but are, leaving out of view parasitic affections, the expression of more recondite lesions—the outward manifestation of pathological conditions of the general system.

*Ether Spray in the Reduction of Strangulated Hernia.*—M. Chavernac, in the *Marseille Médical*, as we learn from the *Bulletin géné-*

\* The French writer remarks parenthetically that this term serves usually to mask our ignorance.

*ral de Therapeutique*, has been employing ether spray in the reduction of strangulated hernia. He has used it in seven or eight cases. Though the results of these cases are not given, we are told by the *Bulletin* that M. Chavernac draws certain conclusions from them. The anæsthetic effect having been alluded to, he dwells chiefly on the refrigeration produced by the atomized ether, as being much greater and more prompt than that effected by ice. This rapid lowering of the temperature, he says, brings about sudden condensation of the gas contained in the strangulated gut. Hence a diminution of volume, and some possibility of reduction.

*Ranula*.—Dr. Bertin reports in the *Union Médicale* a case of *ranula* of Wharton's duct, in a new-born infant; seton applied; recovery. The infant was seven days old when operated on. At birth the mouth was examined for tongue tic, and nothing abnormal found. When three days old the child nursed with difficulty, and a little prominence was noticed under the tongue. This increased to the size of a small walnut. The diagnosis was *both Wharton's ducts imperforate and distended by fluid secreted after birth*.

Dr. Bertin infers that the salivary glands are dormant till food is introduced into the month of infancy.

Dr. B. unsuccessfully employed the seton for *ranula* in a woman, whom he cured with an iodine injection.

*Singular Case*.—M. Dolbeau, as reported in the *Union Médicale*, presented to the Imperial Society of Surgery a patient affected with a singular and rare lesion. The first instance of the kind was exhibited by M. Léon Labbé a year before. The subject, aged 50, without previous disease, and the cause being unknown; also without pain, suppuration or inflammation, is losing his upper jaw by a process of retrocessive elimination. All his teeth, though quite white and sound, have fallen out; the maxilla is reduced to a triangular shape, with its base directed toward the *velum palati*; and there is a large opening between the mouth and nasal fossie. In M. Labbé's case there was paralysis of the *motores oculorum*. In this patient, with the excep-

tion of attacks of keratitis, and double atrophy of the choroid, the general health has been excellent.

*Podophyllin* is sharing the attention bestowed abroad on *veratrum viride*. The former was tried to a considerable extent by some physicians here in Boston, and is still used by some of them. Others found it very uncertain; sometimes acting extremely well, at other times purging with extreme violence, even to the production of syncope.

*The "Mother" in Vinegar*.—M. Béchamp is quoted by the *Gazette Hebdomadaire* as saying that the *mother of wine vinegar* is a membrane composed of microzmas—either simple or developed into the form of straight or curved twigs—engaged in a hyaline intercellular matter. He likens it to connective tissue in which cells are developed.

PREVENTION OF THE "ABUSE OF CHARITY MEDICINE." *Mr. Editor*.—Some time ago, I called attention, through the columns of the *JOURNAL*, to the "abuse of charity medicine" by persons who were not proper objects of charity availing themselves of the benefits of our free hospitals and dispensaries, to the great detriment of general practitioners and imposition on those beneficent institutions; and I suggested that some course might be adopted, to, in a measure, prevent the evil. Since that time, several additional instances of the kind referred to have come under my notice, and I have reason to believe that scarcely a day passes without some such imposition being practised.

Setting aside the question of the improper drafts upon the public charity, it is a great injury to the general practitioner. It is not the established physician who chiefly feels this leak, but the one just entering practice, who depends almost entirely for existence, during the first few years of his professional life, upon the very class who—shuffling about from physician to physician, seeking for the cheapest doctors—are the most likely to apply for free medical attendance.

It is evidently impossible, in nearly every instance, for the physicians of those institutions to prevent this abuse, for which reason there is the more necessity for the other and more aggrieved party—the physicians themselves—to do something to limit, if not prevent it.



The following, from the pen of Dr. Thos. K. Chambers, published in a recent number of the *British Medical Journal*, is so apposite that I will give it in full, in the hope that its practicable suggestions may be pondered, and, if possible, acted upon in this vicinity.

"Whether," says Dr. Chambers, "the number of people capable of paying who are admitted gratis to hospitals be exaggerated or not, by being viewed through a mist, is of little consequence. If this injustice to the general practitioner be knowingly done in three instances, these are three too many; and my experience of hospital physicians and surgeons in London convinces me they are anxious to avoid it. But the difficulty lies in the detection of cases in point. The exclusion of classes cannot be made; for in every class there are poor and rich, and a professional man and his family are often as proper objects of charity as day-laborers. Neither dress nor manner is any guide, as I have found at the cost of some time and trouble. When I was first a physician to St. Mary's, I used to inquire privately into the circumstances of any inmate I saw superior in these respects to those around them, and in no one instance was I able to detect the power of paying for medical attendance; whereas I was constantly finding, when too late, that miserable pauper-looking individuals had considerable sums of money to be handed over to their representatives. I am quite convinced that no investigation by the hospital authorities can detect the imposture in any who take the trouble to practise it. And if they reject the patient on insufficient grounds they run the risk of an action, which an unscrupulous attorney might make an engine of extortion.

"Would I, then, give up the case as hopeless? By no means. But I would ask the sufferers from the system to put their shoulders to the wheel and help themselves; for here, as in most worldly affairs, lies the best hope of success. Let each practitioner whose paying patients are admitted to a hospital, send to the physician or surgeon under whose care they are placed a formal notice of the fact, and very rare indeed will be the instances in which they are not discharged. I have been physician to St. Mary's nearly twenty years, and I have not met with one yet. Consultants never find it their interest to offend voluntarily the neighboring practitioners.

"The regular attendant does not, perhaps, know of the patients having withdrawn themselves from his care. He is

sure to know all the important cases; and a few examples made of rich persons who have disguised themselves to carry out the imposition, will soon put a stop to the practice altogether.

"I think the notice had best be a printed form, agreed upon by a committee for the purpose, so as to avoid all appearance of private jealousy. It should avoid also the show of an appeal *ad misericordiam*, and make its claim as of right. Until some self-helping step of this sort is taken, meeting and talking and grumbling are of very little use."

W. H. C.

*Boston Highlands.*

WE take great satisfaction in laying before our readers the remarks at the dinner in Music Hall, of Dr. J. C. Hutchison, of Brooklyn, N. Y., one of the delegates from the Medical Society of the State of New York to the late annual meeting of the Massachusetts Medical Society. The manuscript was not received till after last week's issue was in type. But such kindly words as these come "better later than never."

I feel inclined, Mr. Chairman and gentlemen, to adopt the speech of a celebrated English mathematician which I have somewhere read, who, on being called upon to respond to a sentiment under circumstances similar to the present, said, "Mr. President, a morbid desire for originality compels me to say that this is the proudest moment of my life, and it does not occur to me to say anything else." But, sir, I cannot forbear to express the pleasure I have experienced in having been selected as one of the delegates to bear to this Society the salutations of the Medical Society of the State of New York. We in New York have of course read and heard much of Massachusetts Medicine and Surgery, and I was very glad to avail myself of the opportunity which this occasion afforded, to meet face to face those whom we have learned to honor and respect; and although a stranger personally, to most of you, I have realized to-day that the brotherhood of medicine is co-extensive with the limits of civilization.

I have been strongly reminded while attending the meetings of your Society of the time when, two years ago, I represented my State Medical Society as one of the delegates to the International Medical Congress at Paris, and the civilities which have been extended to the delegates from sister societies *here*, are in such striking contrast with the discourtesy which characterized their reception *there*, that I feel inclined, although it is perhaps not in very good taste, to refer to them. Our delegates to Paris, in order to make themselves known and to ensure admittance to the Congress, called at the office of the Secretary M. Jacond with their credentials, and after waiting for some time in the ante-room, were informed by the female

*concierge* that M. Jacoud was engaged, but that we might record our names in a book lying upon the table, and take a green "*carte de membre adhérent*" which was signed by the President, M. Bouillaud, and the Secretary, M. Jacoud, to be filled up by ourselves as we might think proper. The card informed us of the day of the first séance, but neither the hour nor the place was designated; and it was only after a good deal of inquiry we learned that the place was the great hall of the Faculty of Medicine. No cards or certificates were demanded at the door, and we entered with the crowd to find seats for ourselves. Our credentials were *never* examined by any officer or committee. The seats were dirty and uncomfortable, without backs, and the room was excessively hot, and so imperfectly ventilated that it was impossible to remain during an entire session without serious detriment. We were not invited to the hospitals, nor were we furnished with any information with regard to the medical matters of Paris, although we were strangers in a strange city, desirous of seeing the institutions which had given to Paris its professional renown. The Secretary announced a banquet at "Le Grande Hotel," free to all who would send their names with a *Napoleon* to him. The dinner was similar to this, with a few more courses and a greater variety of wines.

The delegates received the most polite attentions from many distinguished members of the profession in Paris, and the foreign delegates were elegantly entertained one evening at the house of our countryman, Dr. J. Marion Sims. But it did seem to us that in the splendid city of Paris, of which Bouillaud said in his opening address, quoting from one of the old French poets, "France is Paris, and Paris is the world," pleasanter arrangements might have been made for the reception of invited guests who were the accredited representatives of the Governments and the learned Societies of the world.

What a contrast to the reception which the delegates from other State Societies have received here! Immediately on our arrival in Boston we were invited to visit four well-appointed hospitals, and witnessed in their amphitheatres the perfection of surgical manipulations. On presenting our credentials to the proper committee, we were at once introduced to your President and to the Society, enjoyed the luxury of arm chairs, instead of benches without backs, and were furnished with complimentary tickets to this sumptuous dinner in this magnificent temple of the Muses, where we have enjoyed at intervals music on the Great Organ, and from accomplished vocalists, to say nothing of the rich intellectual repast. Mr. Chairman, I have felt like declaring, in imitation of Bouillaud, that Massachusetts is Boston, I had almost said that New England is Boston, and I feel inclined to commit myself to the opinion that the United States is Boston, and Boston is really the "Hub of the Universe."

Thanking you, gentlemen of the Massachusetts Medical Society, on behalf of the delegates from sister societies, for this cordial reception, permit me again to tender you our congratulations, and to express the hope, on behalf of my own Society, that you will honor us with a delegation at our

next annual meeting at Albany, on the 1st Tuesday in February.

Later still, the New York mail has brought us another acquisition—the address of Dr. Peaslee at the medical festival:—

MR. CHAIRMAN,—I trust you will pardon me if, before I speak of the medical profession of New York city, I say something respecting the city of Boston; since by so doing I am in some degree cancelling a debt of gratitude.

Born within thirty miles of this spot, it was one of my earliest aspirations, as it is at the present moment an intense pleasure, to see Boston; and just forty years ago this long-cherished wish was, for the first time, gratified. I then inspected the city as thoroughly as a boy of 15 years might be expected to do, and came to the deliberate conclusion that Boston was the largest, the most intelligent, and in every way the most desirable place in the world. Subsequent travel and a more extensive observation have since modified my early views of its relative size somewhat; but the other two propositions, Mr. Chairman, I think I am ready to defend up to the present time.

But the Boston of forty years ago was a very different city in area and architectural appearance from the Boston of to-day. You had not then become one of its citizens, Mr. Chairman; and this society could not then have held its anniversary exercises in a hall like this, and varied by music such as can be heard nowhere else on this continent, and of which accessories and surroundings, Sir, I cannot refrain from adding:—

Quorum magna pars, tu, amice fecisti.

But I turn again to the past.

I had even then heard of Drs. Warren, and Hayward, and Channing, and Jackson, and Lewis, and of him, no longer with you, whose son so honorably fills the chair of Practice in your college,\* and of him† (*et sero in calum redact*) whose son adorns the chair of Surgery in the same institution—and I decided, should I ever enter upon the study of medicine, it should be here. This plan was not, however, destined to be fulfilled. But I was destined to be under obligations to Boston in a way which I had not foreseen. My first public teacher in Anatomy was a Boston physician, and a man who better knows how to blend the agreeable with the useful in his anatomical prelections than any professor of that department to whom I have ever listened. And if I have myself succeeded as a public teacher of Anatomy, I attribute the fact in no small degree to the interest he developed in me, in that, the most important branch of our science. Need I here mention his name? The poet and philosopher, the brilliant writer, the ripe and elegant scholar—his name is a household word in all our homes.‡ My first public teacher in Theory and Practice was also a Boston physician, the scholarly and the classic Roby. The first work on Theory and Practice I ever carefully studied was also brought out in this country and in this city by two of the Boston fac-

\* Dr. Shattuck.

† Dr. Bigelow.

‡ Dr. Holmes.

ally, already named—Dr. Bigelow, Sen., and Dr. Holmes. I allude to Dr. M. Hall's Practice, published thirty years ago; a work which hardly pretends to be more than a syllabus of a course of instruction in the Practice of Medicine; but which was the first attempt in our language to base all practice logically upon Pathological Anatomy and Pathology, and has been the model upon which the more recent works on Practice have been constructed. Until I read it, the practice of our art seemed to me, as it does to too many still, to consist of a confused mass of facts, to be remembered if possible, but incapable of reference to a scientific basis—of empiricism, in fact, instead of science.

The benefit, also, which I obtained as a commencing practitioner from still another Boston influence, I should not omit to acknowledge here. I allude to the "Essay on Self-limited Diseases," by Dr. Bigelow, Sen.; which at once put an end to the vexed and vexing questions as to the jugulation of fevers; and explained all that is real in the results of homœopathic practice. I, of course, mean true homœopathic, or Hahnemann's practice; and not the practice of those so-called homœopaths who administer larger doses than any judicious regular physician does at the present day. I merely add that if the paper above-mentioned has led any to the extreme of scarcely prescribing medicine at all, this is not its fault; since it does not demonstrate that rational practice consists of expectation alone.

When I went abroad, also, as a medical student, I everywhere met the representatives of Boston. And it seemed to me that they were more moral and high-minded, and more thorough students than I met with from other quarters, and I still found it to my advantage to emulate Boston. Among them, now nearly thirty years ago, was one I have already had occasion to allude to; then a delicate looking young man, said by Baron Louis to have a tubercular deposit in his lungs, and whom, had I been then requested to give a prognosis, I should not have expected to meet here to-day; but who is now one of the most brilliant operators in this country—the Professor of Surgery in your College. May God preserve his health and strength for thirty years to come.

But if I am transgressing altogether too far it is because

"*Difficile est longum subito deponere amorem.*"

And I will now speak of the medical profession of the city of New York.

A few days since I asked one of our most eminent physicians (a native of Massachusetts) of what the medical profession of New York had reason more especially to be proud. You may, perhaps, think his reply not very complimentary to its present status. "I think," said he, "that we should be most of all proud of *what we are going to do.*" He then explained that within ten years, and perhaps within five years more, every department of medical science, and every specialty, will be as thoroughly taught in New York as in any city of the world. And we certainly have all the material for this purpose, and the required talent is already engaged in this direction.

But on taking a retrospect over the eighteen years since I first became an observer in New York, I find abundant cause of gratification at the

present condition of the profession there. It was then constantly remarked that New York was merely a commercial city, and that science and skill were neither appreciated nor encouraged there; and that the practice of our profession was regarded, by practitioners even, too much in the light of a mere trade.

There have always been many brilliant examples to disprove these assertions; and yet there was then some pretext for them in the actual status of the profession. Instead of being united upon the high ground of a common science, it was divided by cliques, and disgraced by at least one secret society, which arrogated to itself the best patronage of the city, and attempted to control it, so far as possible, by means understood for a time by its members alone. It was within this epoch that the spite of a few persons harassed and pursued a professional brother with the accusation that he had killed a patient—he being no more guilty than any one of us—and who never recovered from the effects of the sense of cruel injustice done him, of injury proceeding from such a source, but was hurried by the shock into his grave. But as an experience like that of the late Dr. Horace Green could never have occurred in Boston, as one of your eminent physicians at the time remarked, so such an experience can never again befall a worthy member of our profession in New York.

For I take pride in saying that, at the present time, medical services are as highly appreciated and as liberally compensated in New York as in any city in the world. The social position of the medical profession is also all that can be desired; and the ethical relations of physicians to each other are recognized and observed in the most precise and courteous manner. As a result of all this, the relations of physicians to their patients are, with the exceptions which the weakness of human nature must account for, all that could be wished. The respect of patients for physicians follows as a matter of course when they perceive that physicians respect each other.

Nor is it difficult to account for the improvement of the faculty of New York, in respect to the relations of physicians to each other and to society at large. It is entirely due to improved means of acquiring professional information, and the increased desire to improve which such means always develop. And not to specify too many of the medical societies in our city, I will mention the New York Pathological Society, with over 150 members, which meets once in two weeks, and is always well attended; the New York Academy of Medicine, nearly twice as large, and also meeting every alternate week; and the Medical Society of the County of New York, with nearly 300 members, and always thronged at its monthly meetings. I also should not omit the New York Medical Journal Association, with about 150 members, meeting every Friday evening, to listen, usually, to a *résumé*, from all the recent medical journals, foreign and domestic, of some practical subject.

All of these societies are open to the public, and all physicians visiting the city are invited to the meetings. And this constant meeting of the physicians of the city with each other, and drink-

ing from the same fountain, begets its legitimate results; and now the predominating influence in the profession is that of the best educated and most moral, and therefore of the wisest, the most generous and the best men in it. The era of "rings" and cliques has passed away, not to return again.

I need say nothing of the number and extent of the hospitals of New York, they are so generally known. But if we are to be more especially proud of what the profession is about to do there, I confess to no small amount of pride at what it is *now doing, and now is*.

Will you allow me, before I close, Mr. Chairman, to say a word respecting this—the Massachusetts Medical Society; for to it, too, I am indebted. While a practitioner within the territory of which this city is the metropolis, I always, if possible, attended its annual meetings. I first became acquainted thus with some of my most highly esteemed professional brethren, and not a few of them I am happy again to meet to-day. And I never attended one of its anniversaries without profit as well as pleasure. We are too prone to lose sight of the advantages of such occasions, and to ask ourselves, if far away from the place of meeting, how we can afford the time. But such occasions improve the heart as well as the intellect, and impart those fraternal emotions which isolation represses if not destroys. They enable the young practitioner, discouraged perhaps by obstacles which, up to the present, have barred his complete success, to realize that others also are struggling like himself, and reconcile him to the thought that

"Rugged places ever lie between  
Adventurous virtue's early toils  
And her triumphant throne."

And these seasons of fraternal intercourse remind the matured practitioner, borne down perhaps by an excess of labor, and sometimes inclined to escape from it to some easier avocation, that he is one of a noble brotherhood; that our profession is one to live for, or to die in; its aim, the best good of man. For

"Whether on the scaffold high,  
Or in the battle's van,  
The noblest place for man to die  
Is where he dies for man."

**MURIATE OF AMMONIA AS A REMEDY.**—Dr. Cholmeley \* \* \* \* confirms the observations of Dr. Anstie in a paper in the December number of the *Practitioner*, as to the great efficacy of the muriate of ammonia as a remedy for neuralgia and myalgic pain. But Dr. Cholmeley goes on to say that with regard to a matter on which Dr. Anstie spoke more doubtfully;—the efficacy, namely, which certain authors have ascribed to this drug as an emmenagogue—he has formed from a large experience a decided opinion in favor of the utility of this medicine. He is convinced that in a very large number of cases of absent or suppressed menstruation, muriate of ammonia acts in

a very direct and powerful manner in establishing or restoring the flux. Dr. Cholmeley has now experimented with the muriate, in doses of 10 to 20 grains, in so large a number of hospital and dispensary patients, that he cannot suppose there is any room for fallacy in this conclusion.—*Practitioner*.

Since the date [the editors of the *Practitioner* add] at which the paper referred to by Dr. Cholmeley was written, we had occasion to employ the muriate of ammonia in two cases of amenorrhœa, with apparently very striking and direct results of a curative kind. As yet, however, we must confess ourselves unable to lay down any definite rule as to the class of cases to which it is applicable with the best chance of success, beyond a general idea that it acts best in persons not anæmic, but possessing a weak and mobile nervous system.

**OVARIOTOMY.**—At a meeting of the Pathological Society of London, Mr. T. Spencer Wells reported a third series of 100 cases of ovariectomy, with remarks on tapping ovarian cysts. The author has arranged in a table all the cases in which he has completed the operation of ovariectomy, from the 200th case included in previous papers to the 300th. In other tables he gives particulars of all his incomplete and exploratory operations. He finds that the mortality lessens as experience increases. Of the first 100 cases, 31 died, and 66 recovered. Of the second 100, 28 died, and 72 recovered. But of this third series of 100 cases, only 23 died, and 77 recovered. The author has endeavored to ascertain what influence tapping ovarian cysts may have upon the mortality of subsequent ovariectomy, and he has arranged in a table all his cases where tapping had never been done, and those in which it had been done from once to sixteen times. The general mortality of the 300 cases was 28·33 per cent. Nearly one-half of the patients, or 135, had never been tapped. In them the mortality was 27·40 per cent.—not one per cent. less than the average mortality. Rather more than one-fourth of the patients, or 78, had been tapped once. In them the mortality was 25·64 per cent. There were 19 who had been tapped three times, and the mortality was 26·32 per cent. Of the 36 who were tapped twice the mortality was exactly the same as that of the group of cases tapped from four to sixteen times—namely, 33·33 per cent. The author is led by these facts, and by other considerations discussed in the paper, to the follow-

ing conclusions:—1. That one or many tappings do not considerably increase the mortality of ovariectomy. 2. That tapping may often be a useful prelude to ovariectomy, either by giving time for the general health to improve, or by lessening shock when the fluid is removed a few days or hours before removing the more solid part of an ovarian tumor; and 3. That when the syphon-trocar is used in such a manner as to prevent escape of ovarian fluid into the peritoneal cavity, and of entrance of air into the cyst, the danger of tapping is very small.—*London Medical Times and Gazette.*

DR. BERNCASTLE, in the *Australian Medical Gazette*, speaking of the venomous snakes of Australia, says:—

"I have been often asked to explain the immunity from danger certain men are supposed to have, who go about exhibiting snakes, and who are apparently bitten by them in public?

"The answer is easy, and the explanation also; these men extract the fangs with tweezers, and for a month, until they have grown again, the animal is harmless; or by teasing it with a piece of flannel, they cause it by repeated bites to exhaust the poison apparatus for a time, and its bite is deprived of danger for that day, although it might even then kill a pigeon, a kitten, or a rabbit, but not hurt a man. I have seen this done myself, and therefore can unravel the mystery. You may take for granted that there is no immunity for any living person from the effects of the poison when fairly inoculated by it, both Underwood and another of his *confrères*, Cartwright, before him, having proved that by the penalty of their lives."

ABSORPTION OF NUTRIMENT INJECTED SUBCUTANEOUSLY.—Drs. Menzel and Perco, in Vienna, seem entitled to the credit of at least some originality, and perhaps of a useful discovery; though it were premature to speak of the practical value of their researches. They began with the injection of almond, olive and cod-liver oils under the cutis of dogs—the quantity used varying from a drachm to an ounce. Finally, after twenty-five successful experiments of this kind, they obtained Prof. Billroth's consent to practise a similar injection upon one of his patients, the quantity injected in the latter case being 9 gr. [grammes?]; and with the same successful result as that obtained in the other cases, namely, ab-

sorption of the oil in from 36 to 48 hours, without any local inflammation, or any other evil consequences. Returning to their *corpora vilia*, they now injected a drachm of milk once; one or two drachms of syrupus simplex ten times; and a drachm of the yolk of a hen's egg four times, with perfect success in each case, the substances being usually absorbed completely within 24 hours.

Stricker and Oser have practised similar injections of peptone, upon patients—but the trial of undigested nutriment has not, it is claimed, been previously made.—*Wiener Med. Wochenschr.*, No. 31.

D. F. L.

THE different status of the medical profession in North Germany from that which it holds here, is strikingly shown in the efforts which are there making for the repeal of certain laws. One law imposes a penalty for refusal to attend upon an urgent case—leaving it quite uncertain in what "urgency" consists. Another forbids physicians charging more than a fixed rate; a prohibition, however, which is quite ignored by the higher class of practitioners. To appreciate the case fairly, let us imagine our Congress to have enacted a law forbidding physicians to charge more than, say \$2.00 per visit.

D. F. L.

CONSANGUINEOUS MARRIAGES.—M. Voisin states as the result of a careful examination of 1,077 of his patients at the Bicêtre and Salpêtrière, that in no one instance of his idiotic, epileptic or insane patients, could healthy consanguinity be legitimately regarded as the cause of the affection. He believes that the ill results which have been observed after consanguineous unions are not really due to these, but are to be attributed to the ordinary hereditary causes.—*Union Med.*

STEATOMATOUS TUMORS OF THE SCALP.—Dr. Kraft-Ebing says that since 1863 he has removed many of these tumors, varying in size from a bean to a pigeon's egg, by a very simple procedure. This consists in the subcutaneous injection of a few drops of a solution (0.65 in 15 parts of water) of tartar emetic. In two or three days the skin ulcerates sufficiently to discharge the contents of the tumor without inducing erysipelas or nausea. He has not in any of his cases met with return of the tumor.—*Berlin Wochenschrift*, March 15.

## Medical Miscellany.

NOTE FROM DR. SNOW, THE CITY REGISTRAR OF PROVIDENCE, R. I.—*Mr. Editor*:—In your Journal, page 351, the foot-note suggests an error in my report. The City Registrar of Boston, to get his figures, estimates the population of Philadelphia at 800,000, and of New York at 1,100,000, both of which figures are much higher than were ever claimed in those cities, and higher than the truth—very much so. If the population stated is reduced in those cities as it should be, the rate of mortality will of course be increased.

Yours truly, E. M. SNOW.

MAINE MEDICAL ASSOCIATION.—The annual meeting of the above association met in Portland recently, and continued its session two days. The attendance was quite large and the proceedings were unusually interesting. Number of members, 260. The President's address (Dr. Dana, of Portland) was an able effort. The Anatomical bill, passed at Augusta last winter, was the subject of considerable congratulation. The bill for the "Registration of Physicians and the Prevention of Quackery," which failed to pass last winter, was urgently advocated. The prevailing diseases of the year have been influenza and scarlatina. The peculiar influenza of this year was regarded as an atmospheric epidemic. A case of recovery from a club-foot, known as *Talipes varus equinus*, reported by Dr. H. S. Tewksbury, of Portland, formed an interesting discussion. Resolutions favoring the extension of term of study to four years, with three full courses, were passed. Among the other interesting subjects were Softening of the Brain and Paralysis (Dr. Harlow, of Augusta, presenting report), indiscriminate sale of drugs, Hypodermic Injections, Calculus, Necrosis of Hip Joint, Preservative Influence of Carbolic Acid, Ovariectomy, Maine General Hospital, Medical Chemistry, Progress of Medicine, Insane Hospital, Obituaries, Puerperal Convulsions, Pathological Cabinet, Portland Almshouse, Abdominal Tumors.

Dr. S. H. Tewksbury presented a lengthy paper on Medico-Legal Evidence, in which he commented severely upon verdicts in actions for railroad damages, and the treatment of physicians on the witness-stand by lawyers, and made several suggestions for their better protection.

Dr. Swasey was delegate from the Massachusetts Society.

Bangor is to be the place of meeting next year.

Some twenty new members were admitted.

Resolutions were passed complimentary to the City Government for use of rooms, Portland physicians for courtesies, and others. The following officers were elected for the ensuing year:—

President—D. McRuer, M.D., Bangor.

1st Vice President—J. M. Bates, M.D., Yarmouth.

2d Vice President—T. H. Jewett, M.D., South Berwick.

Corresponding Secretary—A. C. Hamlin, M.D., Bangor.

Recording Secretary—C. O. Hunt, M.D., Portland.

Treasurer—T. A. Foster, M.D., Portland.

LIBRARY MEDICAL DEPARTMENT UNIVERSITY OF LOUISVILLE, May 27th, 1869.—At a meeting of Delegates from [Western] Medical Colleges for the purpose of considering the question of fees, which was held this day, \* \* \* \* [the following resolutions were adopted.]

*Resolved*, That it is the hope of this Convention that a uniform scale of charges shall be adopted by all the medical colleges of our country, and we do most earnestly advise such a scale shall be agreed upon; and it is our belief that the glory and usefulness of our profession would be enhanced by the adoption of the highest rate advised by the American Medical Association.

*Resolved*, It is not less to be hoped that all the medical colleges of our country would fix a higher standard of preliminary and medical education as a pre-requisite for graduation.

*Resolved*, That the Convention request all the medical colleges in the United States to send each one delegate to a meeting to be held in Washington, on Monday, May 2d, 1870, to take efficient steps for carrying out in good faith the recommendations of the American Medical Association in reference to medical education, and also to form a permanent association of American medical teachers.

*Resolved*, That a copy of these proceedings be sent to all the medical journals in the country.

WM. K. BOWLING, *President*.

GEO. W. BAYLESS, *Secretary*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Case of Embolism—Discoloration of Crystalline Lens—Uterine Displacement—Optics, &c., as taught at the Universities.

ERRATUM.—On page 362, last issue, first line of second paragraph, for "psychological" read *physiological*.

DEATHS IN BOSTON for the week ending Saturday noon, June 19, 80. Males, 40—Females, 40.—Accident, 4—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 4—inflammation of the brain, 2—bronchitis, 1—cancerum oris, 1—consumption, 13—convulsions, 1—debility, 1—dropsy of the brain, 2—epilepsy, 1—scarlet fever, 9—typhoid fever, 2—glanders, 1—disease of the heart, 3—homicide, 1—infantile disease, 2—intemperance, 1—disease of the kidneys, 3—inflammation of the lungs, 6—marasmus, 1—old age, 1—paralysis, 2—puerperal disease, 1—purpura, 1—pyæmia, 1—scrofula, 1—suicide, 1—teething, 2—unknown, 6—whooping cough, 1.

Under 5 years of age, 34—between 5 and 20 years, 8—between 20 and 40 years, 16—between 40 and 60 years, 18—above 60 years, 4. Born in the United States, 50—Ireland, 18—other places, 12.

# Original Communications.

## RECOVERY FROM PNEUMOTHORAX, OCCURRING IN A CASE OF INCIPIENT PHTHISIS, WITHOUT PLEURITIC EFFUSION.

Read before the Boston Society for Medical Observation  
by F. L. Knight, M.D.

Miss L. R., a lady's maid, 23 years of age, has always been delicate. Her father is said to have died after three days' sickness, "with a stitch in his side," at the age of 63. Her mother is well at the age of 60. She never had any lung trouble. They had three children; one died in infancy, one daughter is well.

Miss R. never had any long sickness. In January, 1868, she caught cold at a party; had a cough from that time until the next summer, and failed in strength. She thinks she had no cough in the fall, but sometimes had a little tightness at the top of the right chest. In September, 1868, she applied to a physician, who told her there was no disease of the lung, but gave her medicine, which caused her to spit up much thick, offensive matter, and relieved her. She never had hæmoptysis. She says she felt quite well in the beginning of the last winter, but that she got easily fatigued. She insists that she had no regular cough, but sometimes felt a kind of wheezing at the top of the right chest.

On the evening of February 8th, while walking in the street, she felt a stitch across her shoulders, and then a choking sensation and shortness of breath. She, with the aid of a companion, was able to walk home. I saw her for the first time on the afternoon of Feb. 9th. She was lying on her back, with her head raised; her face was slightly flushed; there was nothing like lividity; her countenance was somewhat anxious. When she was lying quiet the respiration was somewhat accelerated, but there was no urgent dyspnoea. The circulation was only very moderately accelerated, the pulse beating about 90 per minute. She had no cough or expectoration. Her voice was

somewhat weakened. She only complained of tightness about the upper part of the sternum. Physical examination:—

On percussion there was much more resonance throughout the right chest, front and back, than in corresponding parts of the left.

On auscultation there was amphoric respiration, with amphoric whisper, and metallic tinkling synchronous with the respiration, heard over nearly the whole of the right chest.

The exaggerated resonance on percussion extended to the very base of the right chest, and there was no sound produced within the chest by succussion.

The above signs could only indicate pneumothorax. The absence of any dullness at the base, and of succussion sounds, showed that there had been no pleural effusion.

Other symptoms and signs in this case, unnecessary for the diagnosis, but which might have been interesting, were not recorded at the bedside, and hence cannot properly, according to the rules of the Society, be reported here.

Having ascertained the existence of pneumothorax, we will next, if possible, find out its cause. The various causes which may lead to the presence of air in the pleural cavity, are classified by Walsh under four heads:—

*I. No Communication Existing between Pleura and External Air.*—(1) Gangrene of pleura; (2) Chemical decomposition of pleural fluid; (3) Air replacing sero-purulent fluid, suddenly absorbed; (4) Secretion by pleura.

*II. Communication between Pleura and Alimentary Canal.*—(5) Rupture of œsophagus into pleura.

*III. Communication with Atmosphere through Opening in Chest-wall.*—(6) Penetrating wounds of thorax.

*IV. Communication between Pleural Sac and Bronchi.*

*a. Traumatic.*—(7) Tearing of lung-surface by broken ribs. (8) Violent contusion of chest, tearing lung without costal fracture.

*b. Perforation, from Disease opening the Pulmonary Pleura from within outwards, or*

*centrifugal.* (9) Tubercle; (10) Gangrene; (11) Diffuse pulmonary apoplexy; (12) Hydatids; (13) Cancer; (14) Emphysema; (15) Abscess; (16) Rupture in pertussis; (17) Excavated bronchial glands opening into the pleura and bronchi.

*c. Perforation from Disease opening the Pulmonary Pleura from without inwards, or Centripetal.*—(18) Empyema; (19) Parietal abscess.

We are enabled to exclude the First Class from consideration (that including the cases where no communication exists between pleura and external air), because we have evidence of such communication in the amphoric respiration heard over the right chest.

Class Second, in which there is a communication between pleura and alimentary canal, we exclude, because there are no symptoms of rupture of the œsophagus, or of previous disease, which might lead to its rupture.

Class Third is excluded, because there had been no penetrating wound of the chest.

We have now only the Fourth Class left, and of this, subdivision a. is excluded, because the patient had sustained no injury to the chest; subdivision c. is excluded, because the patient had no sign of empyema, or parietal abscess, which would cause perforation from without inwards. In subdivision b. we find (9) Tubercle, which is the cause of pulmonary perforation in the great majority of cases of this affection. Have we any evidence that our patient had so-called tubercular disease of the lung? We have no proof of it. Absolute proof of disease of the lung can only come from physical examination. I had not examined her before the development of pneumothorax, and we cannot judge accurately of the condition of the lung itself when it is surrounded by air. But she had symptoms of phthisis; she had continued cough for the first six months of last year, and lost flesh; for the rest of the year, though she says she had no regular cough, she sometimes had a little, and a tightness at the top of the right chest.

To the fact that she was told by a physician who examined her in September, that she had no disease of the lung, I do not give much weight, for the examination may not have been a careful one, and we cannot depend upon the statements of patients in regard to physicians' opinions. Although she says that she had no regular cough after summer, I suspect she had, for she had her lungs examined for some reason in September, and took cod liver oil later, I believe.

If phthisis was not the cause of the perforation, what could have been? In subdivision b. we find, besides phthisis, gangrene, diffuse pulmonary apoplexy, hydatids, cancer, emphysema, abscess, rupture in pertussis, and excavated bronchial glands opening into the pleura and bronchi, none of which we have good reason to suspect of being the cause of the perforation in this case, excepting possibly vesicular emphysema.

Gangrene and abscess require perhaps a passing notice, as she says she, after taking medicine, "spit up much thick, offensive matter." I could not elicit that the sputa had the peculiar offensiveness of gangrene, or was in such quantity as would imply the emptying of an abscess.

As she never had the symptoms of the diseases which usually precede gangrene or abscess, I think we may exclude them as a possible cause of the perforation in this case, particularly as the offensiveness and excessive amount of sputa had been long absent.

So, now, the question must be between tubercle and vesicular emphysema. I considered tubercular disease to be the cause of the perforation for the following reasons:—

1. Tubercle is a far more common cause of such perforation than is vesicular emphysema.

2. Vesicular emphysema is very rare in a person of her age, especially one with no hereditary tendencies to it.

3. Vesicular emphysema, though often more marked in one lung, or one lobe of one lung than the other, yet is a bilateral affection, showing itself to some degree on both sides.

There was no evidence of vesicular emphysema of the left lung.

4. She had *symptoms*, before the perforation, of tubercle rather than of emphysema. A cough so slight much of the time as not to attract notice, and the absence of dyspnoea, or anything like asthma, are in marked contrast to the harassing cough, and oftentimes great distress of breathing, common in emphysema.

I wish it to be understood here that I do not deny that there may have been rupture of an emphysematous vesicle, such as is found about a tuberculous deposit, but only that I consider the disease of the lung, which caused cough, &c., a year ago, and which was the ultimate cause of the perforation, to be phthisis and not emphysema.

Considering it probable that the perforation is due to "tubercular" disease, we will next consider the subject of *prognosis*.



We are generally told that the perforation of lung in a case of phthisis is very soon followed by pleurisy with effusion, the case thus becoming one of pneumo-hydrothorax. Considering it probable, then, that this case is soon to become one of pneumo-hydrothorax, what will the prognosis be? The prognosis in this affection is said to be always bad; but it is not equally so in all cases.

The points to be considered are well brought out by Dr. R. Douglas Powell, in the *Medical Times and Gazette*, Feb. 13th, 1869. He writes essentially as follows:—

"The intensity of symptoms in pneumothorax is influenced by—

A. The condition of the lung previous to its rupture.

(1.) The greater or less amount of respiratory area suddenly cut off.

(2.) The increased resistance to the flow of blood through the capillaries of the affected lung.

The greater the amount of healthy tissue left by disease, and hence suddenly collapsed, the greater the disturbance of the equilibrium, if one may use the term, between the aerating power and the blood-volume to be aerated, and hence the more urgent the dyspnoea."

"Although it was proved by Goodwyn, and more lately by Mr. Erichsen, that mere collapse of the lung does not materially affect the circulation through it, and although Mr. Erichsen's experiments tend to show that the cessation of the vital changes of respiration does not retard the circulation through the lung, yet in many cases of pneumothorax the lung is subjected to considerable pressure, and is more completely collapsed than in any of the experiments."

From some of his own experiments, he infers that "there is no appreciable difference in the resistance to the circulation through a moderately expanded lung and one collapsed by its own elasticity."

"When the lung is more completely collapsed there is a decided increase in the resistance to the circulation through it."

"The complete collapse of the lung has a very marked effect in retarding the circulation through it, independently of all external pressure."

"In this way the normal quantitative relation between the two circulations is interfered with, and death would result, but that the systemic veins admit of some, and the portal system of still greater engorgement, by which a certain amount of the surplus blood is temporarily removed from

the general circulation, and time is allowed for more permanent relief, either naturally or by treatment."

"B. The state of the other lung will obviously affect the symptoms, which will be intense and fatal, *ceteris paribus*, in direct proportion to its disease."

"The nature of the opening will affect the symptoms, which will be the more urgent in proportion as the opening is more or less completely valvular."

"The temperament of the patient will influence the amount of shock."

Returning now to our patient, we are warranted in the belief that the amount of disease in the right lung previous to its rupture was slight, and that a large respiratory area was suddenly cut off.

On the other hand, the patient had in her favor the fact that the left lung was free from disease, and fortunately the opening in the pleura was perfectly free, as shown by the constant amphoric respiration.

If I had seen her at the time of the perforation, considering that she had been suddenly deprived of the use of so much lung, I should have predicted intense symptoms; but seeing her twenty-four hours after the accident so comfortable as I have described, with a non-valvular opening, I felt that no urgent symptoms need be expected until after considerable effusion, which I naturally looked for.

The condition, progress, duration, and probable termination I put thus in my own mind. She has suffered a serious accident, and has borne the shock of it much better than could have been expected. She will in all probability recover from the immediate effects of the accident, but liquid will be effused, and air and liquid will remain in the chest for an indefinite time, causing dyspnoea on exertion. It is possible for the opening to close and the air to disappear, or the air and liquid, if it should happen after effusion has taken place; but it is not probable. Finally, disease will probably attack the left lung, and thus the patient will ultimately succumb.

For treatment much less was necessary in this patient than is often required. She took quinine, beef-tea, a little wine and an occasional cathartic, and after a few days whatever food she desired.

If I had not made up my mind that there was almost no chance for the opening in the pleura to become closed, I should have in the beginning applied adhesive plaster to the affected side to prevent motion as far as possible.

*Progress of the Case.*—I saw the pa-

tient at first every-day, and afterwards at intervals of a few days for two or three weeks. In a few days she suffered none from dyspnoea, and was able to be about the house. She complained only of weakness. She had no cough. She then moved to a distant locality. I had never found any signs of pleural effusion. The last time I saw her before her removal, the amphoric respiration was less distinct, but still evident.

April 1st.—I visited her. She experienced a very little dyspnoea on exertion, but occasionally had a feeling of tightness across the top of the chest. She had no cough in the morning; occasionally a little in the afternoon. She complained a good deal of weakness.

On examination of the chest, I found percussion normal. Respiration vesicular throughout both lungs; somewhat less intense at lower part of right lung. Vocal signs normal. On cough, very numerous fine, moist râles were heard from the right clavicle to the third rib on that side.

The perforation had evidently been closed and the air absorbed from the pleural sac, but there was evidence of phthisis at the right apex. As there is slight dullness on percussion, more bronchial element in the respiratory murmur, and more resonance of the voice in health at the right apex, compared with the left, in making a diagnosis of incipient phthisis in this region we are obliged to depend upon the signs of secondary bronchitis, viz., the moist râles, and as these were heard over a circumscribed space at the summit of the chest, we are justified, considering the symptoms previous to the perforation, in inferring the existence of phthisis.

I ordered her to lead an indolent life, to devote herself principally to eating, drinking and sleeping, to keep in the open air as much as possible, to take such exercise only as she could take without much fatigue, and to take, an hour after breakfast and an hour after tea, 3i. cod-liver oil with whiskey.

I saw her on the 28th of April. She was then able to walk a mile without rest and without subsequent fatigue. She had no cough, but a little dyspnoea on going up stairs. She complained still of weakness and of loss of appetite. The physical signs remained as at last report. I ordered her to resume the quinine, which had been suspended several weeks before, and to continue the cod-liver oil and whiskey.

The case is interesting, because—

1. Perforation of the pleura in a case of

phthisis was not followed by pleural effusion. I do not remember having seen any record of such a case.

Can we find any reason why effusion did not occur?

Effusion in these cases is considered by many to be dependent on the irritation of the pleura by liquefied tubercle rather than on the irritation of the air. Now this case was incipient and rather latent, and had not probably advanced to softening, so the pleura was not liable to irritation from this source. This seems to me the most probable reason why effusion did not occur.

2. Perforation of the pleura in a case of phthisis became closed, and the signs of pneumothorax disappeared in less than two months after the accident.

This was probably due to the fact that effusion did not occur.

3. The symptoms immediately after the perforation were quite light, when we should have expected them to have been intense, as the patient was suddenly deprived of a large respiratory area. If there had been reason to suppose very extensive disease of the right lung previous to the pleural rupture, then we should not have expected the sudden admission of air to the pleural sac to have been followed by urgent symptoms, because the system would have been previously deprived of the use of much of the lung-tissue. But in this case there was every reason to suppose that the disease was not extensive.

The key to a proper prognosis in regard to the urgency of symptoms, or the progress and termination, in cases of pneumothorax, has not yet been found, but I consider in this case that the lightness of symptoms was due, in a great measure at least, to the existence of a very free communication between the pleural sac and bronchi, so that there was mere collapse and not compression of the lung.

In this case (i. e. collapse without compression), according to the experiments of Goodwyn, Erichsen, and Powell, there would be no interference with the circulation, to which in cases of pneumothorax much of the intensity of symptoms is probably due.

4. It proves that much liquid is not necessary for the production of the physical sign known as metallic tinkling.

There was probably a little bubbling of mucus about the perforation, but not the slightest evidence of any liquid at the bottom of the pleural sac.

The treatment of this case was fortunately very simple, but as it should not

always be so, it may be well to run over here the general line of treatment which it may be proper to pursue.

1. Prevent motion in the affected side by adhesive plaster.

2. Relieve shock by opium, especially subcutaneous injections, and alcoholic stimulants. Without these we may have fatal syncope. But if the patient is strong, and seen early, bleeding may be properly resorted to. Walsh says:—"The quantity of oxygenating surface has been suddenly reduced, and the sudden disparity between that surface and the mass of the blood might, or must, I think, be somewhat lessened by diminishing the quantity of the latter. Whether this be the explanation or not, venesection does give very notable relief, and renders subsequent inflammation of the pleura less violent." Cupping, dry cupping, blisters, cannabis Indica, belladonna, stramonium, aconite and musk have also proved useful in relieving dyspnoea.

3. When there is much interference with the circulation, give hydragogue cathartics to relieve the venous congestion, and if the non-affected lung is encroached upon, and there is danger of asphyxia, puncture the chest and relieve the compression of lung.

4. Sustain the patient by a nutritious diet.

## Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON. SECRETARY,  
DAVID F. LINCOLN, M.D.

APRIL 10th, 1869.—The Society met at the house of Dr. Putnam, at 7½, P.M., the President, Dr. Buckingham, in the chair.

Dr. COTTING reported the following case.

Mrs. — had a good labor, her first. The milk was secreted well. On the 11th day the nurse gave—for what she thought insufficient lochial discharge, though normal in quantity—a hot injection of fennel-seed tea. The patient immediately uttered a shriek; a terrific rigor followed; and then convulsive vomiting, pains in the limbs, lasting all day, excessive rapidity and feebleness of pulse, tympanites and tenderness of the abdomen. Three dejections, with much pain. The lochial discharge remained slight. The next day, she was better; recovery speedy. "What did the injection do?"

Dr. BUCKINGHAM reported the case of a young woman, confined with her first child six weeks ago. The subsequent flow was

slight, but very offensive. About four weeks after labor she was making very slow improvement; and as the offensive discharge was considered to be in part the cause of her unfavorable state, an injection was ordered—of blood-warm water, with a little salt—per vaginam. Its administration was immediately followed by a violent pain in the uterus, extending over the whole abdomen. A drachm of McMunn's elixir was given, and in three hours she fell asleep. Next day she was as well as ever, and the discharge had ceased. Two days ago he tried to give an enema to the baby, to relieve constipation. He found he could not fill the syringe; and unscrewing the instrument, discovered that one valve was gone. The nurse remarked "that it was *very hard to fill the baby*" with that syringe. It was a new instrument, and was the same which had been used for the vaginal injection of the mother. Probably air instead of water had been pumped in considerable quantity into the mother's vagina, and very likely into the uterus.

Dr. COTTING said that the instrument used in his case was a good one, and the injection of air quite improbable. He did not, however, see what greater harm would be produced by air alone than by the fluid, if injected as described.

Dr. SINCLAIR mentioned a case where by direction he injected with a flexible catheter a solution of tannin for menorrhagia, into a uterus which had elongated to seven inches over a mural fibrous tumor. Pain resembling that of labor instantly ensued, extending to back, abdomen and thighs. Has never since injected the uterus in similar circumstances, though he apprehends no trouble if before injection the cavity were sufficiently dilated. He stated further that air injected with a rectal enema often caused much pain; to avoid which, he cautions that the air be expelled from the syringe by completely filling it before inserting the nozzle into the rectum.

*Death of the Fetus shortly before labor, in a household attacked with well-marked Measles; the Mother remaining strong and well.*  
—Dr. RAYMOND reported the case.

Q. L., aged 34, a healthy woman, in fine bodily condition, was approaching the close of her fifth pregnancy. Three and a half weeks before labor a child seven years old had well-marked measles. Two weeks later the oldest, nine years, was attacked with the same disease. One week before delivery the fetal movements, which had been for some days losing force, wholly ceased. The child, a large, well-developed male, was

born on the evening of the fifth instant. The mobility of the bones of the head, the condition of the epidermis, the color of the serotum, eyelids and softer parts, and the purple and softened state of the cord, showed that death had taken place several days before birth. The placenta was throughout in a condition of fatty degeneration.

He asked whether there is, in this case, any reason to connect the death of the child with measles; whether strict care requires the removal of a child-bearing woman from the presence of an eruptive disease, even though the house should be, as in this instance, newly-roomed, well-aired and sunny.

Dr. HOOKER would advise separation, if the family lived in close quarters.

Dr. PUTNAM would regard the issue with solicitude.

Dr. SINCLAIR, in connection with the subject of fetal auscultation, spoke of a case which came under his care while resident surgeon at the Royal Maternity Hospital, Edinburgh. A woman representing herself to be seven months advanced in pregnancy, imagined her child to have died in utero, the usual fetal motions having been absent for two weeks. Beside himself, two experienced obstetric auscultators made several unsuccessful attempts to discover the fetal pulsations. Two months later, however, she returned to the hospital and was delivered of a fine living child.

Dr. REYNOLDS quoted a statement by Cazaux, that in an experience of many years, he had in no instance failed to hear the fetal heart, when as late as the sixth month repeated examinations had been made, unless in cases where the child was subsequently shown to be dead.

Dr. BUCKINGHAM mentioned the case of a woman, near her confinement, in whom he heard a loud, distinct fetal cardiac sound above one groin. Two students who examined her with him on different days, were unable to hear it. By another physician it was plainly heard, but on the other side, and with a difference of 15 pulsations per minute. A week later, the woman was delivered of twins.

Dr. REYNOLDS made the following remarks:—

In agreement with the teaching of Uvedale West, he believed the existence or non-existence of due flexion of the head to be the vital point in regard to cranial mal-position, not the question whether the posterior fontanelle look a little more or a little less backward. If in any case both fontanelles are within easy reach, the occipital end of the head is certainly coming

down, and the position is good enough, provided no disproportion exist. Under these circumstances the occipital end of the head will come to the arch in due time, whether the turn required be three quarters of a half pelvis or only one quarter. If, on the contrary, the posterior fontanelle can only be reached with difficulty or not at all, if the great fontanelle be central, and the frontal suture be easily made out in considerable extent, the mal-position is not to be disregarded; such a case terminating in the great number of instances with the frontal end of the head at the arch, and that whether the posterior fontanelle be thought earlier in the labor to be placed obliquely forward or obliquely backward. More than this, in cases where the head is still high in the pelvis, a seeming backward direction of the posterior fontanelle is often only apparent, not real, and will disappear, or seem to come forward, if the woman be made to lie on her other side, and be then examined with the other hand of the accoucheur. (See "Cranial Position," by R. Uvedale West, in the *Glasgow Medical Journal*, parts xv. and xvi., 1856, 1857.)

*Mode of applying the Forceps.*—Dr. REYNOLDS thinks that in this neighborhood the usual practice is to apply the blades on the sides of the pelvis, without reference to the cranial position. All things considered, this manner of application seems to him to involve the least risk, and for inexperienced operators to be at once much easier and far safer. It is well known that not unfrequently, in oblique positions of the head, the desired rotation takes place within the blades of the forceps during extraction.

Dr. AYER mentioned a case of labor, in which he was obliged to use traction by means of the long forceps during forty minutes. The mark of the instrument, a decided bruised dent, was visible on the upper and central part of the forehead, and over the left ear. In natural presentations he thinks it safe to apply the forceps where most room is found, trusting to them to find the best position, provided we can lock them.

Dr. ARNSOLD reported the birth of a child weighing 15½ pounds; labor lasting only an hour.

Dr. WELLINGTON reported a similar case, attended with rupture of the perineum into the sphincter ani. Ordinary stitches were put in, and removed in four days, the wound doing well.

Dr. LYMAN thought that very little was gained by sutures, beyond keeping the parts from sliding over each other.

Dr. ARNOLD said that in several cases of rupture he had never used sutures and never seen unfavorable results.

Dr. LYMAN mentioned a case that had been left without suture and had failed of union.

Dr. HOOKER never used stitches but once. That case was, at least, a partial success. He never had a case of rupture followed by loss of power of the rectum or bladder, or prolapse of the vagina, or vesico-vaginal fistula.

## Bibliographical Notices.

*The Surgical Treatment of the Diseases of Infancy and Childhood.* By T. HOLMES, M.A., Cantab., late Surgeon to the Hospital for Sick Children, &c. &c. Second Edition. Philadelphia: Lindsay & Blakiston. 1869. Pp. 687.

THE present issue of the above-named volume has been improved by the addition of several chapters and variously modified in accordance with the suggestions of reviewers and the reflections of the author himself. It now forms a comprehensive treatise upon a large class of affections, frequently occurring in early life, which are discussed with great erudition and in a style strongly contrasted with much that is offered in a more pretentious manner. Composed in a spirit thoroughly imbued with the importance of pathological ideas, questions of mechanical treatment and operative interference are entirely subordinated to those which involve the diagnosis and anatomy of morbid lesions; and though, from the habit and drift of the author's literary career, the various chapters are somewhat in the nature of reviews or arguments, based upon what has been said and written in different languages, they are in no sense mere compilations, but fully deserve to stand as representative of English surgery at the present day.

"Congenital affections," which take up one third of the entire volume, naturally constitute an important part of the surgery of childhood, and it would be difficult to direct the reader to a complete account, elsewhere than in this book, of many subjects included under this head, the actual status of which could otherwise be learned only by searching through medical journals, hospital reports and transactions of societies.

The complicated subject of Spina Bifida

and Congenital Sacral Tumors is treated with much elaboration, and though the confusion which prevails in regard to these deformities is by no means unravelled, a large number of valuable cases and facts have been brought together. Mr. Holmes speaks of "the whole spinal cord or the corda equina passing through the opening" of a spina bifida (p. 79). It is an observation of Cruveilhier's that when spina bifida exists below where the cauda equina usually begins, viz., at about the second lumbar vertebra, the cord continues down in substance into the sac. This statement has been invariably confirmed in this city, and for more than twenty years commented on in his lectures by Dr. J. B. S. Jackson. It finds its explanation in the fact that the malformation has commenced at that period of embryonic life when the cord extends to the very extremity of the vertebral canal, as it normally does at a certain stage of its primitive formation.

We should be glad to have seen some reference made to an important division of this malformation into two varieties, viz., those in which the tumor is formed by fluid collected in the space between the dura mater and spinal cord (meningocele), and those in which it is formed by fluid contained in and distending the central canal of the cord itself (myelocoele). In the first named variety the membranes are alone concerned; in the second the marrow itself is involved, becomes gradually distended and atrophied, until there is an actual interruption in its continuity. It is true Cruveilhier asserts that he has never seen any evidence of the fluid being contained in the substance of the spinal cord, but Virchow, in later observations, has shown the progressive steps of its distention, and in one case of spina bifida, the tumor being as large as a hen's egg, he distinctly saw the point of communication between the cyst and the cavity of the central canal (Tumors, t. i., p. 182). The distinction between a meningocele and a myelocoele is therefore by no means unimportant, for in the former a favorable result may follow the evacuation of the liquid, whereas in the latter the operation can scarcely fail to be attended by grave cerebral disturbance. Mr. Holmes gives an instance in which spontaneous rupture was followed by recovery (p. 83), but he does not speak of the possibility of its occurrence during intra-uterine life, the child, in rare instances, being born cured, with a puckered cicatrix, or with a red, excoriated and weeping stump, so to speak, resembling in ap-

pearance the tumors (*cerebra spuria*) seen outside the heads of anencephalous fetuses, and which are the remains of hydrocephalic brains similarly ruptured before birth. It will be noticed that the two forms of *spina bifida* correspond to the two forms of hydrocephalus, in which the fluid is either external or internal to the ventricular cavities.

Aside from any question of treatment, there is a great difference in the symptoms presented by these two varieties of *spina bifida*. Myelocoele, which is found in the dorsal or cervical region alone, is almost inevitably accompanied by an incurable paralysis, while a meningocele may remain during a lifetime as a local lesion of comparatively little consequence. This is especially true when the tumor is covered by integument and other soft parts, and especially if developed in the region of the sacrum. The innocuity of the affection at this point long since attracted attention, and many instances have been reported in which the subjects of such a malformation reached adult life with few if any concomitant symptoms. (See a paper by Dr. J. B. S. Jackson, on "A Peculiar Form of *Spina Bifida*," in *Records of Boston Society for Medical Improvement*, vol. iii. p. 175; also Morgagni, Virchow, Lebert.)

The singular instance of malformation occurring in the practice of the late Dr. Huntington, of Lowell, described as "a *spina bifida* in the form of a pendulous tumor, successfully removed," is quoted from this *Journal* of July 3d, 1862, but the record is thought to be so unintelligible as to justify a doubt whether it really was a case of *spina bifida* (p. 78). This criticism is certainly deserved; but having been induced by it to examine the preparation, which is in the Museum of the Massachusetts Medical College, we think there can be but little hesitation in pronouncing it an example of the affection in question. When presented to the College it had been in spirit three or four months, and its remarkable pedicle, alleged to have been a foot in length before the removal of the tumor, had then shrunk to the much smaller dimensions, recorded by Dr. Jackson, of two inches and a half. The deficiency in the bones of the spine at the point where the pedicle was attached, which unfortunately is not definitely stated; the characteristic absence of integument upon the tumor, and the bulging of the cicatrix left by the excision of the growth, whenever the child cried, would convince anyone who saw the specimen that it could be nothing but a *spina bifida*. The

tumor itself consists of a single large and smoothly lined cavity, and though there are in the thickness of its parietes a few small cysts, as is not uncommon in *spina bifida* (Jackson, Virchow), they alone, and not the tumor, are entitled to the name of "polycystic," which Mr. Holmes applies to it. The case deserves to be relieved from the discredit it has incurred, on account of its very exceptional if not unique features. It probably belongs to that form of *spina bifida*, in which the neck of the sac becomes obliterated, and the latter detached from the spinal membranes, a class which is alluded to at p. 90, and the existence of which Virchow admits in his lecture on this description of tumors. The recovery of the patient after the operation of removal corroborates this view.

"Congenital sacral tumors," caused by a hernia of the spinal membranes through a deficiency in the vertebral column, or through natural orifices, and those due to fetal inclusion, are comparatively well understood, but the "congenital cystic tumors of the sacro-coccygeal region," belonging to neither of these categories, and of which a number have been observed and safely removed by operation, are still obscure in their origin and pathology. Various spoken of as "arachnoid cysts of the sacral region," "coccygeal tumors," "sacral hygromata," "false *spina bifida*," they constitute a distinct class of congenital tumors, of an extremely complex character. Ranging from simple cysts to fibroids, through all the varieties of cystic modification, and not to be confounded with fatty tumors, or the caudal excrescences of a lipomatous nature occasionally observed, they possess one feature in common, viz. :—that in whatever locality the principal portion of the growth may lie, whether within the pelvis, in the perinæum, scrotum, gluteal region or the thigh [some indeed being said to have extended down as far as the popliteal space, and even to the heel]—a more or less defined pedicle connects the tumor with the coccyx or the front of the sacrum, these bones being perfectly developed, and no communication with the meninges of the spinal cord being traceable. Since the discovery of the *coccygeal gland* the histological structure of some of these tumors, and their constant point of origin, have led to the supposition that they might be pathological modifications of this newly found body.

The coccygeal gland was discovered in 1859 by Luschka, Professor of Anatomy at Tübingen. It is situated at the anterior part of the lower extremity of the coccyx,

in the median line, between the levatores ani muscles, and lies in close relation with the ganglion impar of the great sympathetic nerve. It is of about the size of a hemp-seed, of a pale red color, and consists either of a single round mass, or of several aggregated granulations. The microscope shows it to be composed of glandular tissue, principally made up of round or polygonal cells, distinctly nucleated, and surrounded by exceedingly delicate granular matter, easily destroyed. It is permeated by numerous irregular tubules and culs de sac, of vascular origin, derived from a small nutrient vessel constantly found entering the gland from the sacra media artery; indeed, the disposition of vessels and their number is such that the whole structure might erroneously be considered as of vascular formation. It receives many nervous filaments from the terminal branches of the ganglion of the sympathetic. (See *Journal d'Anatomie et de Physiologie*, 1868, p. 269.)

The elementary structure of this gland has been detected in some of these congenital cystic tumors, and W. Braune (the title of whose brochure, *Die Doppelbildungen und ausserbornen Geschwülste der Kreuzbeinregion*, Leipzig, 1862, largely quoted from by Mr. Holmes, is omitted in the foot-notes), as well as MM. Perrin and Molk of Strasbourg, admit unhesitatingly a belief in their development from it. So few observations have, however, been made since this relationship was suspected, that the question is still an open one, and must remain so until the gland has been more carefully studied in the fetus, and its alterations at the commencement of these cystic formations further examined.

There is, however, another aspect from which this inquiry gains additional interest. It is well known that the neck is a frequent seat of congenital cysts. There is in this region a little body, found near the bifurcation of the carotid artery, heretofore described as the *middle cervical ganglion* of the great sympathetic. Recent observations have given this a new character, and both Luschka and Arnold consider it a gland and not a nervous ganglion. Formed of tubules, supposed to be of vascular origin, each tube being lined with an epithelial layer and containing nucleated cells, free nuclei and granular matter, as well as many nerves and nerve cells, it presents a structure identical with that of the coecygeal gland, and is now called the *glandula intercarotica*, or *gland of Luschka*. Kölliker, in his last edition (1867) accepts these views, and they have been since confirmed by Plöörner.

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From this gland the compound congenital cysts of the neck are supposed to originate, and the suggestion finds confirmation in the clinical facts, well known to any one who has been unfortunate enough to meddle with them, that they are excessively vascular and of very deep origin. Further observation, especially as regards the period of intra-uterine life at which these cysts form, is desirable to confirm this etiology. They have been found as early as the fourth month. (See *Gazette Hebdomadaire*, April 16, 1869, p. 264, and Boucher, *Etude sur les Kystes Congenitaux du Cou*, Paris, 1868.)

It is singular that Mr. Holmes makes no mention of these curious items in the pathological history of perineal and cervical cysts, recent discussions having made them prominent, though they may eventually prove of no importance. This is the more noticeable since, in the interval between his two editions, a comprehensive article upon these tumors has been written by Simon Duplay, in which Mr. Holmes's observations on the subject are so favorably alluded to, that the paper could scarcely have escaped his notice. It may also be observed that no description is given of those congenital dermoid cysts of the floor of the mouth, which contain sebaceous matter, churned by the action of the muscles into innumerable balls, varying in size from the head of a pin to that of a marble, according as the cyst is large or small. A very considerable number of these have been operated upon in this city, and five cases were reported by Dr. H. J. Bigelow, so long ago as 1858. They are also described by Denonvilliers in the *Compendium de Chirurgie*, and by M. Paquet in the *Archives Générales*.

A peculiar case of encephalocele is cited in a foot-note to p. 63, from the Transactions of the London Pathological Society, in which a tumor protruding from the mouth was found after death to be produced by a bulging of the membranes of the brain through an orifice in the base of the skull, near the sella turcica, and to be formed of gray cerebral substance, seemingly a new growth, but not constituting an integral part of the brain. A counterpart to this may be found in the Museum of the Massachusetts Medical College, in which a perforation of the body of the sphenoid is accompanied by a tumor, which we have the authority of Dr. Jeffries Wyman for saying is the pituitary body. A similar instance, with a striking illustrative wood cut, may be found in Virchow's lectures on tumors.

Under the head of congenital malforma-

tions in the neck, closure of the œsophagus is spoken of as occurring "pretty often;" but of occlusion, with inter-communication between the œsophagus and trachea, only three cases are given. Of this malformation there are two specimens in our College Museum, and the Catalogue contains a reference to two others, observed in the practice of the late Dr. R. D. Mussey when he resided in Salem. To these we may add those of M. Tarnier, who, in a paper read before the Academy of Medicine in 1866, narrates a case of his own, and collects twelve other instances of occluded œsophagus. (*Archives Gen. de Méd.*, 1866, p. 238.)

In speaking of imperforate anus Mr. Holmes does not seem to consider a communication between the gut and the urethra in the male, or the vagina in the female, as of frequent occurrence. According to Dr. Jackson, except in monsters, and in one case where the entire large intestine was wanting, it has existed in every specimen he has examined. Several adult female subjects with this deformity have also been known to physicians in this neighborhood. The disastrous trocar punctures, not unfamiliar to surgeons here, are made the text for a condemnation of that instrument in cases of imperforation, and for the advocacy of the exploratory incision. This proving unsuccessful, or seeming unlikely to reach the intestine, Mr. Holmes advises opening the colon in front by what is known as Littré's method. "The paradox of M. Huguier," that the sigmoid flexure is to be looked for in the right iliac fossa, and not in the left, is elaborately discussed, and the conclusion arrived at, that it is immaterial in which groin the opening is made, as the colon may be reached about equally well from either direction. The chapter on imperforate anus and rectum we think is one of the most admirable in the book.

There are many points to which we should like to refer, connected with the subjects of hare lip and cleft palate, and the better success of operations which has been made possible in the latter deformity by the use of Mr. Smith's "gag," and the consequent facility of their performance under ether; with that of extrophy of the bladder and the means available for its relief; two successful operations having been recently performed by Dr. Bigelow at the Massachusetts General Hospital; and with that of malformations of the genital organs, especially phymosis. This, though mentioned as of frequent occurrence, is not stated to be of constant and uniform existence in

new-born children; another point of anatomy which we owe to Dr. Jackson's accurate observation, who has also shown that in the fetus adhesion of the prepuce to the glans penis is invariably found. A gallant soldier, killed in the late rebellion, bore throughout his life the traces of an ineffectual attempt on the part of an eminent surgeon to rid him soon after his birth of this supposed defect.

Space hardly remains for comment on the other two divisions of the book before us, which treat of "Injuries" and "Diseases." We are happy to express our accord with the author, and respect his independence when he says:—"I am afraid that in some quarters I shall be accused of being much behind the age if I confess that I am in favor, as far as present experience goes, of the old method of tying the vessels, over the new one of securing them with needles. I have never seen any harm whatever from the use of silk ligatures in childhood, nor, in the experience I have had, any good whatever from the use of acupressure" (p. 229).

We also desire to cite Mr. Holmes as saying that tracheotomy can be best done under chloroform (p. 319), the opinion being fortified in a footnote by a statement of Dr. Buchanan, of Glasgow, as to his favorable experience of the operation with the patient in an anæsthetic state. We have never ourselves seen any case in which its use led to a fatal result, but we are led to allude to this point of surgical practice from having seen in this JOURNAL, a short time ago, the suggestion that it might be advisable not to use ether when tracheotomy was performed for croup. Firmly convinced that the operation need not be more dangerous for being practised during etherization, we should be sorry to see parents and children debarred this priceless comfort.

Like all Englishmen, Mr. Holmes is very cautious in his denunciations of chloroform. But if half the unpleasant, and sometimes even dangerous symptoms which he speaks of as attending its inhalation (pp. 16 and 227) ever occurred with pure sulphuric ether, surgeons might be pitied indeed. As it is, our sympathies are only with the patients whose lives are unnecessarily exposed to the dangers of an anæsthetic the sole recommendation of which is its great convenience in use. A late New York journal brings us the report of two deaths in that city from chloroform, administered by the most experienced surgeons. Such events hasten the coming day of ether, but



it is to be regretted that its triumph should be attended by such a holocaust of victims.

Few surgeons have given so careful and sagacious study to the subject of Excision of Joints as Mr. Holmes. Excision of the hip he says he has performed a greater number of times than any one else, viz., in 19 instances. We give the result of these operations (p. 456):—

“6 died from the direct effect of the operation (in one case after amputation).

1 died after the operation, from the previous effects of the disease.

1 died of independent disease, some time after recovery from amputation.

2 recovered from the operation, but not from the disease, and died a long while afterwards.

2 were little if at all benefited.

1 (twice excised) was doubtful.

3 have useful limbs, but with sinuses.

3 recovered completely.”

The author evidently feels that this record requires a little special pleading, the mortality which it represents, 52·63 per cent., being, as will presently be shown, 12 per cent. greater than the latest exhibit of the death-rate of this operation in children. The most recent statistics, collated evidently with great care from all countries, are those of Dr. Good, of Paris (1869). They comprise 112 cases reported since 1860, of which 53·57 per cent. terminated fatally. Of the entire number, 59 occurred in children between 2 and 12 years of age; 40·67 per cent. of these were followed by a fatal result. But Dr. Good excludes from his table all those cases in which the cure was not verified after the operation, as well as those in which the cure was incomplete, including under this head persistent fistulous openings, even though the patient made use of the limb. Estimated with this degree of strictness, Mr. Holmes's cases (which would be reduced in number to thirteen) represent a mortality of 76·92 per cent. These figures indicate how cautiously cases should be selected, and that the indiscriminate performance of excision of the hip-joint can only bring a really valuable measure into disrepute. That increase of mortality has followed increased frequency of the operation is proved by the various tables of results collected during the past ten years. These show an advance from 36·30 per cent. (Fock, 1860) to 53·57 per cent. (Good, 1869).

It would be agreeable to quote from Mr. Holmes his sensible observations in regard to the very simple disease, necrosis, and

its treatment; topics which are now so frequently obscured by new nomenclature that one hardly recognizes, beneath their disguises, old acquaintances of long before the days of Ollier and Sédillot, but the length which this notice has already reached forbids its further extension.

We have selected for reference only a few subjects from this admirable volume, and lest anything we have said should be thought inconsistent with the high praise awarded to it at the outset of our remarks, we desire to close with the expression of opinion, that it is one of the best works on surgery produced of late years, being excellent for reference, judicious in doctrine, and elegant in style of composition.

*Surgical Cases.* By DAVID W. CHEEVER, M.D., Adjunct Professor of Clinical Surgery in Harvard University, Surgeon to the Boston City Hospital, Boston: printed for the Author. David Clapp & Son, 331 Washington St. 1869.

It is seldom that a small pamphlet of 33 pages contains the history of so many interesting and important cases as does the one recently published by Dr. Cheever.

The case of removal of an encephaloid tumor of tonsil derives peculiar interest from the circumstance that, while cancer of the tonsil is a very rare disease, and any operative interference for its relief still rarer, it is believed that this is the first instance where the tumor has been removed by external incision. The result is stated as follows:—

“In thirty-one days the wound had entirely closed. The pharynx was entirely clear; and, except that the pillars of the palate on the side affected were somewhat separated, it appeared in perfectly normal condition. The tongue was protruded in a straight line, and no paralysis of the lip remained.”

This would seem to encourage surgeons to attempt its removal by external incision in other cases of this disorder, in spite of the necessary depth of the wound, and obvious dangers attending the operation.

Two cases of naso-pharyngeal polypus, requiring the performance three times of Langenbeck's operation by depression and replacement of the superior maxilla. In the first case the polypus was removed by temporary depression of the right upper maxilla. The report states that in nineteen days the ligatures had all come away; there was no purulent discharge, and the bone was in excellent position and motion-

less. After thirty-five days he was discharged well.

Disease having returned, after eleven months, operation was repeated. Convalescence in this instance was rapid, and in twenty-seven days patient was discharged, with the wounds perfectly healed, and the bone firmly in place.

In the second case "the patient was treated in a manner novel as far as we know, the operation including both superior maxillary bones." Haemorrhage is reported as not excessive, but the shock of the operation is represented as considerable, and the succeeding symptoms as grave from that time. This patient, who is described as "feeble and anæmic from suffering and abstinence," died on the afternoon of the fifth day from the operation.

Two cases of reproduction of the tibia after excision are given. In the first there was "excision of the entire diaphysis and lower epiphysis of the tibia of a girl 13 years of age, for suppurative periostitis, followed by regeneration of the bone and a useful limb." In the second case "about five inches of the shaft were dissected out, and the extremities cut through with the chain saw. Recovery was excellent and continuous. A good limb resulted."

Eleven cases of excision of the head of the femur for "morbus coxarius" are given. "Of these, three died:—One adult, of exhaustion; one adult, of Bright's disease; one child, of tubercular meningitis. Four of these children are walking very well. The remaining four are still in bed, and under treatment."

These cases were all treated at the City Hospital, by Dr. Cheever and his colleagues.

†

*Uterine Catarrh frequently the Cause of Sterility—New Treatment.* By H. E. GAUTHLON, M.D. London, New York, Savannah, Paris, Philadelphia and Baltimore.

This is a pamphlet of about 80 pages, not closely written, and divided into chapters on the Anatomy, Pathology, Causes, Symptoms, Diagnosis, Prognosis and Treatment (by the new method) of Uterine Catarrh.

The author certainly deserves credit for his proficiency in the English language; for Frenchmen usually have much difficulty with foreign languages. Although one is rather too forcibly reminded that uterine treatments form a *specialty* to which the author devotes himself, there is a good deal of excellent common sense in each chapter.

But a few passages need comment. We are told on page 34 that uterine catarrh is dependent on a condition of the uterus "directly opposed to anything like inflammation"; and on page 35, that "the discharge which comes from the os uteri is often mixed with blood and pus."

On page 45, under the head of diagnosis, we are told that "there is no blood in uterine catarrh."

And although we do not profess any especial knowledge of this branch of medical research, we think that the paragraph on page 49, in which a most alarming picture of the occasional consequences of uterine catarrh is given, must be received with a certain amount of reservation.

Again, we are told that the diagnosis of the affection is perfectly easy; for the *discharge* must be seen with the speculum to proceed from the os; and in order to guide us in diagnosing cervical from uterine catarrh, we are told that, in the former, the sound does not readily pass the os internum, while in the latter case the whole muscular coat of the uterus is in a state of relaxation, which readily allows the sound to pass to the fundus.

We must be allowed to say that the chapter on diagnosis seems to us very deficient. Nothing is said about vaginal leucorrhœa, while it might properly be inferred that *uterine catarrh* was the most common of all ailments.

The "new treatment" advised consists of injections of a saturated solution of nitrate of silver, thrown up to the fundus uteri, retained there by a tampon, and repeated at intervals of from four to fifteen days or more. We are assured that no danger whatever is to be apprehended from the fluid passing into the peritoneum, and that no untoward effects ever follow this trifling operation, except in rare cases, such symptoms as "coldness of the extremities, swelling of the abdomen, smallness of the pulse, vomiting, and trembling of the limbs," "which give great alarm to inexperienced persons." We have had no experience with these injections; and would only say, that if proved harmless, they must be of benefit in many cases.

In reading the pamphlet, we think that we have noticed a similarity to some other French productions, in this respect, that the whole subject is made to appear entirely free from all difficulty, provided only that the rules of *M. Gauthlon* be attended to; and we have, in particular, been reminded of a small work on "*Les Amygdales*," by *M. Chassaignac*, in which it appears that

the enlargement of these organs is of altogether more frequent occurrence than has ever been supposed; and that the most alarming train of symptoms is apt to follow, unless the "amygdales" are at once extirpated in the way prescribed, and by means of the instrument invented by *M. Chassaig-nac*.  
F. C. R.

## Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 1, 1869.

ADVERTISED MEDICINES:—THE TRAFFIC IN DRUGS. IS PHARMACY TO BECOME A SPECIALTY OF GENERAL MEDICINE?

In that portion of our work which consists in looking over the "exchanges," we are much encumbered with the extra pages which are laden with the advertisements of proprietary medicines. We have to thread our way through them in impatient search for the tables of contents. The annoyance stands next in degree to that of cutting the leaves to complete the work left unfinished by the book-binder. In selecting a medicinal preparation, a candidate for our favor would not have a better chance of being prescribed from its so getting in our way. And, we have learned to be doubly cautious about noticing in these pages any remedy that we may see blazoned in hypertrophied characters on the outside leaves of this or of any other Journal. Yet, though any practitioner of medicine who knows his business should have better ways of finding out where to get the best remedial agent than from the advertisements of interested parties, we suppose these advertisements pay, or they would not continue to be paid for.

But, what we are going to do about it? We ourselves do not direct the advertising department; and in one sense, we suppose, the publisher who gets the profit out of it may not be fully master of the situation. We encounter the grievance we complain of in handling all classes of medical periodicals—quarterly, monthly and weekly; and any publisher who should refuse to advertise proprietary medicines like his neighbors

would obviously hamper his means of competing with other journals. Further, when the publishers are not medical men, it would be difficult at present fully to control their action in the matter by outside pressure. Alas, that these things are so! But, we state things as they are, and not as we would have them. We have no remedy to suggest at this moment. We cannot even say whether the disease be self-limited. We may, however, inquire what pathological condition is behind this state of things. We are, therefore, naturally led to take a glimpse at the position of the trade in drugs.

As to the wholesale drug trade, we infer that dealers can get from the importers just as good articles as they are willing to pay for; but that the tendency is, to a certain extent, to cheapen the price and the article with it. This appears from a paper on Rhubarb by Dr. E. R. Squibb before the American Pharmaceutical Association at its annual meeting in 1868. After stating that the general market for this drug had run down in quality, he goes on to say:—

Now the point desired to be made is that if pharmacists were only willing to pay such prices now, rhubarb of a quality fully equal to the Russian in medicinal value might be had, and would soon be as plentiful as ever it was. In proof of this statement the writer can offer the fact that he has never been without rhubarb which was fully equal to the Russian in his judgment, and that his price until just now has never been above \$7.00, and is now \$8.00, in consequence of unusual scarcity of high grades in the foreign markets. As the writer has never imported more than one package direct, and that from London, but has always gone through importing houses, the prices paid have been higher than if the market was supplied for a general demand. The last two packages received are exhibited at this meeting in connection with this note. The first of these is a chest of 130 pounds, imported to special order from Bremen, by B. W. Bull & Co., of New York. This cost 10s. 6d. sterling, which with the duty and charges make it cost here \$3.75 gold or \$5.50 currency. The contents of this chest were separated in two equal parts without any selection, and every lump of one-half was opened and examined. On separating the unsound and discolored pieces, which are considered unfit for medicinal uses, they are found not to exceed 20 per cent. of the

whole. This, if deducted, brings the currency cost up to \$6.60, or with the labor of opening and selecting, say \$6.80. This furnishes a grade of rhubarb which will be pronounced by judges as unexceptionable, and which at \$8.00 per pound pays nearly 18 per cent. profit. In addition to this the 20 per cent. of rejected lumps yields by labor about 12 or 15 per cent. of its weight of sound rhubarb as good as the larger portion, only that it is in small fragments. This, when the labor of separating is charged upon it, increases the profit on the whole to over 20 per cent.

To illustrate the manner in which the market may be run down, he says:—

A distant druggist or a pharmacist wants rhubarb to supply the physicians of his neighborhood and his incidental sales, and he goes to a central market, or employs a broker there, who usually does better for him, in one sense, than he could do for himself. He finds a range of prices, which, though all low, vary very much. He looks at the root or the powder, as the case may be, and is apt to think the higher prices much too high for the slighter differences in appearance, for he rarely opens the lumps, or more than two or three of them, and the powders he must take upon faith or appearance. He never thinks of the prices being all far too low, but takes the lowest, and the merchant who has this makes the sale. A less fortunate neighbor and competitor of this merchant sees this and finds that he must buy his rhubarb lower next time. The time arrives, and he sees a lot which can be picked over, and the best of it dusted with some yellow powder will present a fair appearance, and the remainder can be made into a handsome powder by skillful millers. The price gets a shade lower and he buys. The importer of this may have sold the lot whose price successfully attracted the pharmacist, and thus made two sales where the importer of the better and unsuccessful quality only made one sale. Or, if both grades are held by the same importer he finds the lower one go off two to one. He says, "I have mistaken my market, and before these higher priced parcels are sold I must have some more of the lower, or my neighbors will get my trade away from me." His orders go out promptly with limitations which are sure to avoid the mistake for the future. And thus the common market is largely supplied, the lower grades going off rapidly, the higher grades with very slow sale and much trouble, while the highest disappear from the market, or are

only heard of once in a while through some "Miss Nancy" who is rather nice than wise.

Rhubarb is a very delicate and sensitive drug, and much of it bears evidence of having been gathered immature or at a wrong season, and much of it of having been spoiled in the drying, but far more appears to get damaged in the transportation, so that it is not improbable that a very small part only of the total product ever reaches the market in a normal condition. No matter how or where it is damaged, it must be sold, and if it can be properly "doctored" there is but little of it that cannot be made to sell pretty well, either upon faith and the reputation of the seller, or upon appearance, or upon both.

Impinging closely upon the regular wholesale business is the *quondam irregular* wholesale business of the manufacturers and venders of patent or proprietary medicines. We need not dwell upon this department of the subject; but may remark, in passing, that the market is controlled, as we are informed, in respect to certain drugs by those who purchase to make them up into their proprietary pills or potions. A hundred thousand dollars invested in advertising a single preparation into popular use, and the colossal fortunes with the "palatial mansions" of some of those who have made lucky hits in dosing the public stomach, give some idea of the extent of the outside trade under consideration. It is, however, the relation of the traffic in proprietary medicines to the retail dealers in drugs—to the pharmacists—which chiefly challenges our interest here.

Some of the pharmacists of this city enjoy the confidence of the profession to an unlimited extent. Most of us would feel it sufficient praise of our proficiency as medical practitioners if we were acknowledged to be as skillful and thorough in our walk as those pharmacists are considered to be in theirs. Yet who among them will tell you they do not deal more or less in proprietary medicines? The fact is, the druggist earns but a meagre pittance, comparatively, by putting up the prescriptions of physicians. Grant him one hundred per centum profit—that gives him on a dozen pills, say, which it takes him twenty minutes to compound, and for which he

charges twenty-five cents, twelve and a half cents for his net earning. In some cases the prescription business about pays the store-rent, while clerk-hire, the principal's own living, and surplus, are gained by the sale of fancy toilet-articles and *proprietary medicines*. A druggist in a western city undertook to be an old-fashioned apothecary, depending upon the recipe business, and announced that he was about to keep himself *integer vitiæ scelerisque purus* as regards patent medicines. Precisely how long he tried it we are unable to say, but we are told that at the end of a year he had as fine a stock of "proprietary medicines" as was to be found in his ilk.

But, we have not told all. It would appear that in some parts of the country the regular business of the pharmacist is becoming over-topped by the trade in proprietary medicinal articles. One of our profession—than whom there is no higher authority on this subject in the country—writes us this fact. A surgeon of his acquaintance told him that he went to many of the up-town fashionable pharmacists of New York in the vain search for three or four little round, fine sponges needed for a delicate operation; and that he must have seen during this search a display of more than one hundred thousand dollars worth of fancy goods and proprietary medicines ostentatiously exhibited. He found only two pieces of the sponge, and for these he was charged more than five times the wholesale value.

Thus far the American Pharmaceutical Association has not attempted to grapple with the evil. An admirable work it is doing in its efforts to break down the adulteration of drugs and to raise the standard of pharmacy. In these efforts it is stimulated by the influence of such men as Prof. W. Procter, Jr., the Editor of the *American Journal of Pharmacy*, and Dr. E. R. Squibb. Dr. Squibb has for more than twenty years past worked at the *Materia Medica* and Pharmacy as a kind of specialty. The perfection of his pharmaceutical preparations, put up in the light of chemical assay, has made them as it were classical. His zeal, however, for "the Art," and his self-abnegation in behalf of it,

are not sufficiently known outside of pharmaceutical circles. We might say more. But Dr. Squibb's aversion to publicity restrains us. Notwithstanding these good influences, the American Pharmaceutical Association has not, as a body, attempted to stem the wide-spread abuse we are speaking of—perhaps because too many of its members are helplessly involved in it.\*

The magnitude of the trade in proprietary medicines obviously grows out of the extensive demand for them. What are the causes of that demand? One source of it may, perhaps, be found in a false idea of economy—the patient in dread of the

\* Mr. Daniel C. Robbins, however, in his Report on the Drug Market at the meeting of the American Pharmaceutical Association in 1868, says:—

On account of recent decisions in our courts of law in favor of proprietary rights in secret remedies, or patent medicines, as they are improperly called, some kind of legislation is required for public protection against this class of articles, as they have rapidly increased in number and importance, within a few years, as articles of commerce. The market list of secret proprietary preparations in use in our country far exceeds, in number of articles, that of the list of officials in all our *Materia Medica*. It is generally conceded by our apothecaries that about one half of all their sales, in amount, to customers is derived from this source, and if it were possible to obtain reliable statistics of the *per capita* or total consumption of these compounds within the Union, the American people would awake, and put in chains a traffic that panders to many vices, that seldom hesitates at any imposture, and as a rule considers the deception of the public to be a legitimate business. Hair washes, called dyes or restoratives, are sold in immense quantities as purely vegetable preparations, when lead and other deleterious minerals make the substance of these. Quieting and soothing syrups are recommended and largely sold as harmless cordials or sedatives for infants, which are composed in good part of morphine, opiates or other powerful sedatives, which should never be administered without the knowledge of the parent or some competent person. The child, whose only defence consists in the power to cry, for whom resistance is a necessity for protection and for development, is drugged to sleep, growth is retarded, and the brain and nervous system permanently injured, because of the ignorance of the parent, alike of the laws of health and of the deleterious remedy, which is misrepresented in all its component parts. No restriction of any kind is imposed upon ignorant quackery, while the physician, before he can prescribe or practise medicine, must be educated and pass some examination, as also the regular apothecary, in most of the States, is obliged to label carefully, under stringent laws, all similar preparations. \* \* \*

It is believed more secret medicinal preparations are sold and consumed in the United States than in all other countries, as throughout the continent of Europe there are very stringent regulations in regard to the sale of "nostrums."

The following is from the *New York Times*:—

A bill has been favorably reported in the Legislature, providing for the inspection of patent or *quack* medicines. The inspectors are required to ascertain their ingredients, and report the same annually to the Legislature and to the State Medical Society. There is a law analogous to this in about every country of Europe, and it doubtless often prevents the sale of deadly or injurious substances as patent medicines. The public would be startled at the exhibitions of charlatanism if the composition of some of the popular nostrums was reported.

doctor's fee sometimes paying, we take it, more for his patent medicines than the physician's advice and prescription combined would amount to. Another source, doubtless, is a notion that the medicine, with its mysterious and sounding title, the merits of which many dignitaries of the land have certified to, has in it some newly discovered drug, or owes its alleged success to some happy combination of *simples* (as in one sense is probably often the fact), of which drug or combination its manufacturers alone are cognizant. Of course we who are behind the scenes know better.

A more weighty cause, however, of the proprietary medicine harvest we find in another direction. It has been well said that the mistakes of the philosopher of one period become the vulgar errors of a succeeding generation. The physician of a former day dealt out his doses with a liberal, an unsparing hand. The practitioner of the present time, trained to demand of every remedy ample proofs of its right to be used before he will trust it, is abstemious in his employment of drugs, and leaves much to nature. It is more comfortable for him to wait for the statute of limitations to take sway, than it is for his patient who has the suffering to bear, and who becomes impatient. Some of the public may have understood literally the hyperbole of our genial friend in the advance guard, who said that it were better for humanity if all the drugs were thrown into the sea, only he should pity the fishes! Well, the popular mind has got by tradition from our medical predecessors the notion that when people are sick they must keep swallowing pills, powders, or draughts. If the regular Faculty will not administer them with sufficient freedom, the sick man, or his friends for him, will buy them of whomever will sell them. The Homœopathic reaction, we suspect, was not altogether against the nauseous prescriptions of former days, but grew up, in part, from this desire to be constantly "taking something" for every ailment. The pellet of sugar of milk, with triturated moonshine combined, supplied this demand, and nature had a chance to show what she could do, when neither aided nor obstructed.

But, thus far even, we believe we have told but a part of the story. The grand fact, as we think, is that whenever there is disease mankind at large have an aptitude for remedies. Out of this desire (instinctive shall we say?) they cannot be reasoned, though they may be cheated by the classic charm, the transcendental mystery of the thirtieth dilution, or the Savage incantation. From Hippocrates to the Indian Medicine Man there have been those whose business it was, and is, to seek out such things as would promise to heal the aching frame.

To let our remarks, therefore, here gather to a head, a lesson we would draw from the above considerations is, that it is not for us to attempt to eradicate this universal tendency. We may prune it, we may guide it; but we must ourselves humbly follow the lead of nature. Acknowledge submissively that much that has been cherished in the past, as to supposed curative agents, has been erroneous — absurd; that the wheat has been outweighed by the chaff; that proposed remedies are now constantly being started, which have a run and then are forgotten, because tried in the balance they are found wanting. Yet, after all, it is plain to common sense, that we are in possession of some medication that is of sterling worth, while we are constantly adding to the list of drugs that assuage and ameliorate, if they do not cure; and finally, that in the very fact of the rigid analysis — the extended investigation to which every new remedy is subjected, we have the earnest that our armamentum of reliable weapons will be largely increased in the future. If we must eliminate the middle term from the *tuto, cito, et jucunde*, as applied to much of the medication that we have, or even expect soon to have at command, yet as to the remaining terms, we contend that they are applicable to considerable which we now possess; and we have reason to hope that their scope will be widely extended.

We have now glanced at the position of the wholesale drug market; at that of the pharmacist; and at the traffic in proprietary medicines. There has been another small class of extra-pharmaceutical pre-

parations which was perhaps not altogether to be reprobated. These preparations were gotten up for prescription by physicians. They were prescribed by physicians, and on the latter rests the chief responsibility of any impropriety connected with them. At a time when it was more difficult to get reliable drugs than it is now, certain druggists in whom the profession had confidence, offered preparations to be used by medical prescription, the nature of which compounds was disclosed; the formulæ for making them being, however, kept secret, in order to confine the sale to the manufacturer. McMunn's Elixir of Opium is in point. Its mode of preparation was not made public. But it was at one time believed to be a more reliable opiate than much of the laudanum then in the market, and it was largely prescribed by physicians. The choice being often between an article believed to be reliable—though prepared by a secret formula—on the one hand; and officinal preparations of very doubtful quality, put up by half-educated or careless apothecaries, on the other, the physician often took the first horn of the dilemma. (Would that a more flagrant complicity with the trade in secret or proprietary medicines could never be laid at the door of regular physicians!) It is our belief that the occasion for this temptation to depart from the rules of our order, however, grew out of the general neglect of pharmacy by our profession; and the emergency demanded of us as a body to initiate measures to do away with it.

The initiative, which we failed to take as a body, has been instituted by one among us, and the emergency, *for the time being*, done away with, by his single-handed efforts. The extra-pharmaceutical preparations alluded to, we think have had their day in this country. Dr. Squibb's preparations have superseded them. These are as perfect, probably, as medicines can be made, and their formulæ are published to the world. Dr. Squibb has also furnished his laboratory to place in the market a class of officinal articles of such high quality that through competition the character of the articles, as produced by others, must necessarily be raised toward what it ought to be.

He stands ready, whenever another manufacturer offers a pharmaceutical article of marked excellence, to afford every encouragement to his competitor. His example has already taken root. Firms in Philadelphia, who are large manufacturers of druggists' wares, have approximated to his standard, and certain pharmacists in this city are following him very closely in the path he has marked out; while, at the same time, under the auspices of the Massachusetts College of Pharmacy, they are, with the aid of numerous lectures, diligently improving themselves in scientific knowledge, with a zeal which, if widely imitated, will tend greatly to elevate the status of the pharmacist.

Here, then, we see a great advance. And these efforts have, to a certain extent, their counterparts in our profession. *Materia Medica* is beginning to be investigated anew and with greater thoroughness than heretofore. But we must, perhaps, eventually go further. It may in course of time be found that *pharmacy must be made a speciality of general medicine*; and the pharmacist be a member of the medical profession, subject to its obligations and *esprit de corps*, while protected and adequately compensated. On this point we take leave to quote almost verbatim the language addressed to us by one who is, perhaps, the highest authority on this subject we have. He says the medical profession must sooner or later learn this lesson with regard to pharmacy—that it cannot be safely entrusted to the hands of mere outsiders; but that a far more accurate knowledge of *materia medica* and pharmacy must be attained and kept up by medical men, in order to control the specialist, and to ward off the attacks of greedy and remorseless parasites. It is only necessary to recollect the relations of pharmacy and *materia medica* to therapeutics; to reflect that by therapeutics, medical science and art have their only hold upon mankind as being practically useful; and that the world becomes rapidly more and more utilitarian, in order to account for the present condition of things; and also to foretell the future of legitimate medicine, if all of its best minds, and all its labors, are devoted to the Science, while the Art is

left to become a prey to ignorance and empiricism. Of what avail is it to mankind at large that the physician can diagnosticate with unerring certainty a pathological condition which he can neither remedy nor control? Will it be enough to tell people in this age of the world that the employment of common sense and judgment in regimen, and so forth, will often palliate all the most important diseased conditions, and that with such palliatives patients must try to live as long as they can? It seems to me, says our correspondent, there can be but one answer to these questions; and if so, there can be but one remedy—viz.: the accumulation of accurate knowledge in therapeutics, parallel to that of other departments of medical science. That research and investigation in this field are more laborious, and more beset by difficulties and discouragements than in some others, will in no degree mitigate the effects of neglecting them. The natural relation between labor and result is as sure in this field as in any other, and the harvest more promising.

Thus speaks one who loves the Art for its own sake.

In the *Pacific Medical and Surgical Journal* for May is a report of the "Case of Extraordinary Recovery from Extensive Saw-wound of the Skull" we mentioned in the *Journal* for April 29. From the report before us, which, like the former, is from Dr. A. C. Folsom, we make the following extracts, as giving some particulars in addition to the account we formerly quoted. Our selections consist of extracts from a report of Dr. A. C. Folsom; the remarks of the Editor of the *Pacific Medical and Surgical Journal*; and finally, extracts from the second statement of Dr. Folsom in reply to the editor.

The "falling apart," or "gaping open"—as it is expressed in our first quoted account—of the bones of the skull, we find it as difficult to understand as the Editor of the *Pacific Medical and Surgical Journal*.

\* \* \* Measured by the convex surface of the skull, the length of the cut in the bones of the cranium was nine inches. They fell apart over an inch, the length of the scalp wound being eleven inches. \* \* \*

No large arteries were severed. The pulsation of all the cerebral arteries could

be distinctly seen. All that portion of the brain visible appeared normal. There was no congestion of the brain or its membranes. During the examination and dressing the pulse remained at 74. There was no pain or undue sensitiveness about the wound. The patient could not tell when the brain, its membranes, or the walls of the cut were touched, even when pressed upon with considerable force. He was sensible when the scalp-wound was touched. \* \* \*

No medicine was ever needed during his confinement, not even an opiate. His appetite was always good and his sleep regular. There was a slight coating of the tongue the second day, but none afterward. The patient was dismissed after daily attention of three weeks, with the recommendation of perfect quiet for two or three more. \* \* \* I have recently examined the cicatrix. The bones appear firm, with very little unnatural callus. Mental faculties perfectly intact. He says himself, that he has never suffered from headache, and never experienced any inconvenience from the injury, that he is aware of. \* \* \*

It may not be amiss to mention, that the saw by which he was wounded is about  $\frac{1}{2}$  inch thick and about 18 inches in diameter, with a speed of about 2000 revolutions per minute. The patient states that "he did not feel the cutting of the saw much, but heard it jingle and ring as it cut through the bones." \* \* \*

EDITORIAL NOTE [by Editor *Pacific Medical and Surgical Journal*].—Being desirous to present this extraordinary and almost incredible case with all possible evidence in favor of its truth, we wrote to Dr. Folsom, requesting a more definite statement in regard to the depth of the wound and the "falling apart" of the cranial bones, with any other facts bearing on the case. We subjoin his answer in full. Our readers now have all the evidence in our possession. We may add that we have no reason for entertaining the slightest doubt with respect to the testimony, as regards the confidence to be reposed in Dr. Folsom. We had heard of the case through other channels and common report, as being extraordinary beyond belief; and this it was which induced us in the first place to write to Dr. F. for a statement of it. We do not concur in Dr. Folsom's opinion that the saw reached the base of the brain, believing this to be wholly inconsistent with the continuance of life. Had the teeth of the saw touched both extremities of the wound at the same time, the intervening teeth must have reached the base of the skull, dividing



the corpus callosum, optic nerve, &c. But the probability is that the saw, first striking the occiput, communicated to the head a rolling motion, drawing each succeeding portion to it, until the cut was completed. This explanation is corroborated by the statement that the scalp wound was so much longer at the occiput (two inches) than the wound in the skull. The saw, too, need not have entered the brain substance more than a few lines, for the wound seems to have been as near the *falx cerebri*—the membrane separating the cerebral lobes—as is consistent with the escape from injury of the longitudinal sinus, and doubtlessly the rule and the probe were both thrust between the two lobes, which, if the explanation is correct, might readily be done, even to the corpus callosum, without injury.]

MENDOCINO, March 13th, 1869.

DR. GIBBONS, JR.

Dear Sir:—Yours of March 6th is at hand, and in answer to your inquiry I would say—the cut extended from the root of the nose to the occipital protuberance, or rather  $\frac{1}{2}$  an inch to the left of it, and  $\frac{1}{2}$  an inch below it, consequently passing through the left parietal bone, and across the coronal and lambdoidal sutures; missing, as you see, the longitudinal sinus. The widest gap in the skull was at the union of the coronal and sagittal sutures; that is, the point where measurement was taken. The wound in the scalp was longer than in the skull, at the back of the head, so I am aware there was no further fracture of the parietal bone. But fracture of the frontal bone I always suspected, for I could account for the gaping in no other way.

Why hæmorrhage was *not* fatal (in fact there was scarcely any), is because circular saws have never produced hæmorrhage to my knowledge. They strangulate the arteries. I believe the femoral could be cut by them without producing immediate death. I dare not publish it as my opinion, but I believe the saw reached the base of the skull. How could the bones fall apart otherwise? That they did fall apart I am certain, and measured the opening. I was in error as to the date of injury. It was on the 18th of August, 1864, instead of July. He was 40 years of age the following October. He is a native of Freetown, Massachusetts.

DR. HENRY J. BIGELOW sails for Europe this week, for a short visit. What with our Professors of Surgery, of Theory and Practice, and of *Materia Medica*, together

with the Dean of the Faculty abroad, the Eastern hemisphere will this summer have, *in addition to the Alps*, a heavy weight to carry. We presume the astronomers will be on the alert for perturbations.

PERSONAL.—On Commencement Day this week, Dr. Samuel A. Green, of this city, was elected to the Board of Overseers of Harvard University, in place of Prof. Eliot, resigned.

FROM a critique on some parts of Dr. Barnes's lectures on Operative Midwifery, by Dr. E. W. Murphy, we make this extract:—

As to the space in the contracted pelvis which would authorize the Cæsarian section, Dr. Barnes fixes on 1.75" as the length of the conjugate axis in the ovate pelvis. Dr. Osborn, who performed a successful operation of craniotomy in Elizabeth Sherwood's case, stated that the conjugate axis was an inch and a half. This success gave the opponents of the Cæsarian section great courage; but it was afterwards found that none could succeed in delivering with the perforator and crotchet in so small a space, and therefore it was inferred that either Dr. Osborn must have been wrong in his measurement, or that his case was an exception which proved the rule of the Cæsarian section. To measure the conjugate axis accurately is difficult; several instruments have been contrived for the purpose, but most of them, from Baudelocque's and Coutouly's to the most modern, have been found difficult to apply. Dr. Barnes recommends the hand to be used as the best pelvimeter, and in this he is perfectly correct; the measurement can be ascertained with much less risk of mistake, but it seems to me doubtful that, in this way, the measurement can be made to the tenth of an inch.—*London Medical Times and Gazette*.

THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA AND THE COLORED DOCTORS.—\* \* \* \* The Society did not quite come up to the mark of receiving the colored doctors into social affiliation, but they have shown themselves quite as exclusive in regard to numerous white applicants in the past, and we have no doubt that the colored practitioners will, as they become better known, be able to dispel every prejudice to their social disadvantage. \* \* \* —*Washington paper*.

## Medical Miscellany.

THE N. Y. MEDICAL GAZETTE *versus* "Us."—The *Gazette* compliments our "delicious coolness" because we intimated (*in re* the Doctorate of Medicine) that Massachusetts was one of the States which would require the highest standard of medical education. Why! of course we meant that New York was another of them. New England isn't too proud to have New York alongside, even now that we have had the Coliseum. Would the Editor of the *Gazette* be willing to carry his erudition to Alaska and settle there, just to astonish the natives? What a deal there is in "the way of putting things!" as the "Country Parson" has it.

Who is going to have that prize-money for ventilating sick-rooms—the *Gazette* or our correspondent "Nuss"? The old lady has got her "specs" on and is looking "sharp" for the fifty dollars to add to the Gilmore testimonial. The *Gazette* has not replied to her, but wants to do like the medical students in the dissecting room—turn the subject.

RHODE ISLAND HOSPITAL, PROVIDENCE, R. I.—We had an opportunity of visiting this institution June 24th. We found it well arranged, substantial, spacious and elegant. It is situated on an eminence commanding a view of Providence River, and receiving an abundant supply of fresh air. Only a portion of the structure has received its internal finish. There are sixty-eight beds now prepared, thirty-eight of which were occupied at the date of our visit.

The Hospital is for patients from all parts of the State; but the City of Providence as a Corporation, and by contributions from its citizens, furnished the larger portion of its cost—some three hundred and fifty thousand dollars.

HEADQUARTERS FIFTH MILITARY DISTRICT, State of Texas. Austin, Texas, May 26, 1869. General Orders, No. 104. I. The quarantine for this State, suspended by General Orders No. 24, series of 1868, Headquarters Fifth Military District, is hereby resumed; and it is made the duty of the civil and military authorities at all ports in this District, at which vessels may arrive with epidemic diseases, or from infected ports, to make and enforce, without delay, proper quarantine regulations. \* \* \*

THE President to-day (June 26th) appointed William M. Wood, Surgeon in the U. S. Navy, to be Chief of the Bureau of Medicine and Surgery of the Navy Department, in the place of P. F. Horwitz, the appointment to date from July 1st.

TOOTH PULLING EXTRA.—A lady in Sarnia was recently reading to her little son that passage of Scripture quoted from the Mosaic law, "An eye for an eye, a tooth for a tooth," when the boy exclaimed, "Mamma, what a time the dentists must have had then!"—*Canada Journal of Dental Science*.

THE publication of the *Provincial Medical Journal*, Halifax, N. S., ceases for the present—the Editors finding it impossible to devote to it the requisite time.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communications have been received:—Medical Evidence—Niemeyer on the relation of Haemoptysis to Phthisis—Anæsthesia following Epileptiform Attack—Description of Wire Speculum, &c.

BOOKS AND PAMPHLETS RECEIVED.—*Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales*, &c. &c., par M. P. Garnier.—*Seigler's Literarischer Monatsbericht*.—*Transactions of the Vermont Medical Society for the years 1867 and 1868*.—*Secondary Degenerations of the Spinal Cord*. By Ch. Bonchard. Translated from the French by Edward R. Hun, M.D.—*Sixth Annual Annoucement of the Charity Hospital Medical College, Cleveland, Ohio*.—*The Transactions of the New York Academy of Medicine*, Vol. iii, Part vi. On the Etiology of Bright's Disease, &c.—*Physical Culture in Amherst College*. By Nathan Allen, M.D.—*Roll of Students of Harvard University who served in the Army or Navy of the United States during the War of the Rebellion*. Prepared, at the request of the Corporation, by Francis H. Brown, M.D.—*The Relations and Reciprocal Obligations between the Medical Profession and the Educated and Cultivated Classes*. An Oration delivered before the Alumni Association of the Medical Department of the University of the City of New York, Feb. 23d, 1869. By Henry S. Hewitt, M.D.

CORRECTION.—In the article on Herpes Zoster Ophthalmicus, page 334, "Dr. H. F. Damon, Neuroses of the Skin, 1868," should be added to the list of monographs. B. J. J.

MARRIED.—In this city, 24th ult., Charles W. Swan, M.D., to Hetta Winchester nee Kanihan, both of Boston.

DIED.—In Albany, N. Y., on the 17th ult., Dr. Alden March, aged 74, Professor of Surgery in the Albany Medical College.—In Newburyport, 21st ult., Dr. Joseph Atkinson, 52 years.—In this city, 28th ult., Edward D. G. Palmer.

DEATHS IN BOSTON for the week ending Saturday noon, June 25, 83. Males, 43—Females, 40.—Accident, 4—apoplexy, 2—disease of the bladder, 1—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 2—cancer, 3—cholera infantum, 1—consumption, 15—convulsions, 1—croup, 2—debility, 1—diarrhea, 3—dropsy, 1—peritonitis, 1—scarlet fever, 6—typhoid fever, 1—disease of the heart, 1—intemperance, 2—disease of the kidneys, 4—inflammation of the lungs, 9—marasmus, 2—cerebro-spinal meningitis, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 1—disease of the prostate gland, 1—puerperal disease, 2—rheumatism, 1—scrofula, 1—syphilis, 1—teething, 1—whooping cough, 2.

Under 5 years of age, 36—between 5 and 20 years, 7—between 20 and 40 years, 15—between 40 and 60 years, 8—above 60 years, 17. Born in the United States, 63—Ireland, 14—other places, 6.

## Original Communications.

## REPORT OF A CASE OF PARTIAL SPONTANEOUS AMPUTATION OF THE METACARPUS IN UTERO, WITH EXPLANATORY REMARKS.

Translation of a paper read before the Society for Physical and Medical Science of Würzburg, May 8th, 1869. By Dr. PAUL MUNDE, House-physician in the Lying-in Hospital, Clinical Assistant to Prof. von Scanzoni, and Tutor at the School for Midwifery in Würzburg, Bavaria.

DURING the last summer, in my capacity as house-physician of the Lying-in Hospital of this city, I had occasion to observe a case of spontaneous amputation of the metacarpus in utero, in a, with one exception, otherwise healthy and full-grown child. Considering the comparative rarity of this anomaly, there being, so far as I have been able to ascertain, not more than about 140 cases on record, of which barely one-half are well-authenticated instances of the deformity, I thought an account of a new case, which in some respects differs from most of those already published, might be of interest and might assist in clearing up the mystery still hanging over this phenomenon, the publishing of new cases and their careful explanation being the only way in which this problem can be solved.

B. L., a healthy, well-formed woman, 34 years of age, was delivered August 14th, 1868, of her third child (the two first deliveries having been perfectly regular, and the children being well-developed). The female child was born in the first vertex presentation, after a birth of seven hours' duration, weighed 6 lbs. 5 oz., and was strong and well-developed; it presented, however, an irregularity of formation in both hands, which attracted my attention and caused me to examine its limbs more closely than is usually done.

The right arm and hand were of normal size and shape, with the exception that the hand showed at about the middle of the metacarpus a distinct constriction; at the ulnar and radial borders of the metacarpus was a deep groove, from which projected at

either side a fleshy process, terminating in a thread-like fibrous cord (similar to the columnæ papillares and chordæ tendinæ of the heart) which was spread in the form of a bridge over the *vola manûs* and united the two fleshy projections.

Between the two points of insertion the cord was free, and the skin below showed no sign of constriction. The grooves at the borders of the hand were connected over the *dorsum manûs* by a shallow but distinct furrow, which did not correspond to any usual groove or wrinkle. The fibrous cord stretched across the palm is one inch long, and seems to have been vascular, its ends showing a black, thrombus-like appearance. This cord remained *in situ* during four days, when one end became detached, and, in order to prevent its being lost, I removed it entirely. The microscopic examination of the cord, kindly performed for me by my friend, Dr. Karl Koester, assistant and tutor under Prof. von Recklinghausen, at the Pathological Institute of this University, showed it to consist of young fibrous tissue (fusiform cells) intermingled at intervals with epithelium.

The whole appearance of the metacarpus was such as, at first sight, to cause me to think of an attempt at spontaneous amputation, which opinion was coincided with by my *chef*, Prof. v. Scanzoni, and by several other medical gentlemen to whom I showed the child.

The first joint of each of the three middle fingers of the same hand presented also, immediately above the knuckles, a distinct and perfect shallow constriction, the place being one where usually no wrinkle is found. The motions of the hand were perfect, and there was no apparent diminution of vigor. The left hand, although showing no signs of constriction, was still more deformed than the right, being much smaller, narrower, and totally without power; the arm also appeared atrophied and the wrist joint imperfectly developed, the place of the carpus being seemingly supplied by a bursa, and the child keeping the hand always in a drooping position, without being able to extend it. In fact, the extensors

appeared to be wanting, although the flexors were present, for the fingers were generally kept slightly flexed.

Otherwise the child was perfectly healthy and well-formed, and thrived at its mother's breast. The woman called on me about the middle of last February, and I found the signs of constriction as plain as ever in the right hand, which had increased in size and vigor in accordance with the age of the child. The left hand was still comparatively small and powerless. Before attempting to offer any explanation of this case, it will be appropriate to give a short account of the theories and views entertained on the subject of "Spontaneous Amputation" up to the present period; a question which has given rise to much controversy in the medical world, especially in the obstetrical and pathological parts of it, and which is still far enough from being satisfactorily explained.

Although Hippocrates does not record any distinct cases, still he was aware of the existence of intrauterine deformities, and ascribed them to the influence of blows or falls inflicted upon the mother, "the part of the child struck being afterwards found deformed." Up to the present century all congenital deformities were supposed to be owing either to the cause just mentioned, to an arrest of development (Haller, *elementa physiologicæ corporis humani*, 1778), or to a psychological phenomenon, in consequence of which the child of a woman, who during her pregnancy was subjected to some mental shock, is found deformed in accordance with the nature of the exciting cause. This latter opinion is one still largely held by the public, and not entirely abandoned even by part of the profession.

Up to the year 1812 I have found only two cases of congenital absence of limbs accurately described. One is mentioned by Aldrovaude in a work on human and animal monsters, published in 1642, as having occurred in 1497 (reported by Nonancourt in his thesis on Spontaneous Amputation, Strashourg, 1864); the second is published by Schæffer (*Fœtus cum matre per nervos commercium*, Dissertation, Erlangen, 1775), but neither attempt any explanations of the origin of the deformity.

Chaussier (*Discours à l'Hôp. de Méd.*—*Dictionnaire des Sciences Méd.* tom. xv. et xxiv., 1812) was the first to call attention to the species of deformity in question, and to the resemblance of the parts to the stump of an amputated limb. Hence arose the term "Spontaneous Amputation," under which is understood a process, by means

of which a part of an already formed limb of a fetus in utero is gradually detached.

The cases of spontaneous amputation which have come under notice may be divided into four chief classes:—

1. Total spontaneous amputation if the limb was completely detached.
2. Partial spontaneous amputation if the part to be divided was still more or less adherent.
3. Such cases in which the cause of the separation was found.
4. Such cases in which the detached limb was found.

Chaussier considered the mutilation to have been caused by intrauterine inflammation, mortification and consequent formation of a line of demarcation, which gradually detached the diseased limb. In this view he was seconded by the French authors Billard, Marat, Desormeaux, Riche-rand and Graetzer, none of whom, however, went into any further particulars as to the cause and nature of the affection.

Montgomery (*Dublin Medical Journal*, i. and ii. 1832), Hennig (*Virchow's Archiv.*, 1860), and Martin (*Jenaische Annalen*, 1850) refute this theory, affirming, as I believe justly, that no case of intrauterine (intramembranous) mortification (gangrene) has as yet been described, and that the presence of air is absolutely necessary to such a process.

According to Schnieder (*Wien. Wochenschr.*, 1865) the presence of air and principally oxygen is absolutely indispensable to the formation of wet or humid gangrene. The idea of mummification of the diseased part loses ground from the fact of the impossibility of the evaporation of the fluid, the limb floating in the liquor amnii. Besides, according to analyses of Scherer and Voit (Scanzoni's *Obstetrics*, 1867) the liquor amnii possesses strong antiseptic powers, varying according to the time of pregnancy. In the year 1832 Montgomery (*Dublin Medical Journal*) published several cases of spontaneous amputation, and accounted for the deformity by supposing the limb to have been encircled and constricted by bands of plastic lymph, without, however, offering any opinion as to the origin of such bands. Simpson (*Dublin Med. Jour.* 1836), Simonart (*Archiv de la Méd. Belge*, 1846), and others, are of the same opinion, besides offering other explanations to be referred to hereafter. Martin (*loc. cit.*) considers the agency of such organic bands as doubtless, but says that they are mainly active in producing partial amputation and never total division.

Gurlt (*Med. Zeitung für Heilkunde in Preussen*, ii. Jahr., 1833) joins Montgomery in the assertion that the constriction is caused by organic bands, and believes the ligatures to be undivided processes of the original or blastodermic membrane from which the foetus is formed, be this amnion or umbilical vesicle. These processes, he says, are drawn into cords by the motions of the foetus, and finally catch the developing limbs in a species of noose or knot. As an additional agent, a retraction of the fibres of the skin takes place, by means of which the resistance to the constricting cords is lessened.

Nettekoven (*Organ für die ges. Heilkunde*, Bonn, i. 3) is of the same opinion. Martin (*loc. cit.*), however, contends that the formation of the amnion takes place at a period when the extremities are not yet formed or are mere rudiments, and that no case is known in which the remnants of such an amniotic fold on the foetus or the amnion has been found.

Simpson (*Dublin Med. Jour.*, 1836) adopts Montgomery's view of the subject, and thinks that the bands consist of organized lymph effused by inflammatory action. The seat of the inflammation he considers to be the skin of the foetus, especially at spots which by juxtaposition become united, the plastic lymph being then drawn into bands by the motions of the child; such a connection between the fetal integuments and the amnion, he says, has been proved by several cases.

Further, Simpson mentions that he was "at one time inclined to believe that spontaneous amputation of the fetal limbs might be occasionally produced in another mode, viz., by previous fracture of the bone," this opinion being suggested by an illustrative case. Still he does not seem to assert anything more than the possibility of such an occurrence.

Simonart (*loc. cit.*), while following the theory of Montgomery, Gurlt and Simpson, considers spontaneous amputation to arise always from constriction either through the umbilical cord or through accidental bands, which latter are of three kinds:—amniotic, foetal, and foeto-amniotic. They all arise in consequence of a local inflammation, and those of the foetus originate in an ulceration of the skin, produced by encircling bands of the umbilical cord, after which a strong cicatricial contraction takes place, thus constricting the diseased part. Adjacent portions of skin may also adhere, and the adhesion be gradually drawn into a band by the movements of the foetus.

Hennig (*Virchow's Archiv*, 1860) and Avrard (*Jour. des Con. Méd.* 1816) take the same view of the subject.

Simonart also considered the causes of spontaneous amputation as promoting premature delivery, and affirmed that all children afflicted with this deformity were born at or before the sixth month of pregnancy. This assertion was denied by Avrard (*loc. cit.*) and is refuted by a number of well-authenticated cases.

Martin (*loc. cit.*), attracted by the case of a child, which was born with its humerus amputated, the mutilation appearing to have resulted in consequence of a fracture of the limb caused by direct violence to the mother (a fall from a ladder), discusses the different theories on the origin of the deformity, and comes to the conclusion that previous fracture, laceration of the blood-vessels and nerves, and consequent atrophy, mummification and detachment of the limb, is one of the most frequent causes of spontaneous amputation. The only other manner of detachment recognized by him is the one described by Montgomery, viz., that by means of organic bands. Martin does not seem to have been acquainted with the fact, that Simpson had previously suggested this explanation; at least, he does not mention it.

G. Braun (*Wien. Zeitschr.*, 1854 and 1862) believes in the possibility of the amniotic folds mentioned by Gurlt, their principal cause being the absence of a sufficient quantity or the late formation of the liquor amnii, thus leaving the amnion in contact with the foetus, and giving rise to inflammation and adhesions.

Of this opinion are G. Braun, Friedinger, Rokitansky, Schuller, Stadthagen, H. Mueller and Janssen.

G. Braun further mentions the possibility of the bursting of the amnion in cases of hydra-llaute (a collection of fluid between amnion and chorion), the consequent flaccidity of the membrane and its possible torsion into cords by movements of the foetus, such as have been found in some of the reported cases.

Credé (*Dissertation*, Leipzig, 1858, de foetus in utero mutilatione, &c.), after describing a case, mentions the fact that inflammations before birth principally furnish plastic exudations, but that, considering the immense *vis fetus plastica*, not even inflammation need always be present to produce such a result.

Barkow (*Contributions to Pathological Embryology*, 1859) advocates the theory of Chaussier, and on the strength of a case

observed, attributes the gangrene to thrombosis of a main bloodvessel and insufficient collateral circulation. The grounds on which the theory of Chaussier can be refuted are, of course, also valid in this case.

Kristeller (*Monatsschrift für Geburtskunde*, 1859) publishes a case and follows the opinion of Simonart, with the exception that he does not consider real ulceration necessary, but any inflammation of the foetal skin capable of producing a cicatricial contraction. He differs principally from Simonart in considering the dermatitis to be idiopathic, whereas S. believes it to result from the irritation of constricting bands or the umbilical cord.

This explanation seems adaptable to a number of cases, especially of partial amputation, in which no remnants of cords or bands, or of previous amnitis, could be found after birth.

Virchow, in a discourse held at a meeting of the Obstetrical Society in Berlin in 1862, expressed his disbelief in the process called spontaneous amputation, and considered the deformity to arise from an inflammation of the undeveloped limb, the ensuing cicatrix preventing its further development. This doubt in the existence of spontaneous amputation is shared by most pathological anatomists of the day, probably from the reason that none of them have paid sufficient attention to the subject or have seen cases demonstrating the process, such as are described by Montgomery, Martin, Simpson and others, which come mostly under the observation of physicians and obstetricians.

Seanzoni (*Obstetric.*, vol. ii. page 157, 1867) believes bands to be the most common agents in spontaneous amputation, but does not believe in an amnitis, and considers the ligatures to be formed by a plastic exudation furnished by the walls of the uterus, and then passed by transudation through the chorion and amnion.

While admitting this view, I still am of opinion that the want of bloodvessels in the amnion does not necessarily exclude the possibility of amnitis, and refer for my authority to the recent investigations of Recklinghausen and Cohnheim on inflammation of another bloodless membrane, the cornea.

Finally, the possibility of constriction and spontaneous amputation of a limb by means of the umbilical cord has been mentioned by Montgomery, Simpson, Velpeau, Chailly, Cazeaux and others, and some 20 cases of this phenomenon are on record, the children in all of them having been

born before the fifth month, the pressure on the cord preventing circulation and causing the death of the fetus before complete amputation had taken place. Some authors mention an abnormally short umbilical cord as an agent in spontaneous amputation. How congenital abnormal shortness of the cord can produce spontaneous amputation is hard to understand; and in cases in which length of the cord is diminished because it encircles one of the foetal limbs, its shortness is the result of the process effecting the amputation and not its cause.

After having perused the mass of literature existing on this subject (those authors only being cited who offered new views of the question), I do not think that any doubt as to the existence of this anomaly can be entertained, and consider the scruples of the pathological authorities of the day to be completely outweighed by the evidence of the distinguished physicians and observers named as having written on the subject.

Of the 140 cases, however, which have been published since Chaussier first called special attention to the subject, not more than 50 can be considered as proving the existence of spontaneous amputation by means of bands, ligatures, fractures, cicatrices, &c., and the other 90 comprise instances where the probability is rather on the side of an arrest of development as the cause of the deformity, or where the constriction was produced by the umbilical cord. Thus it is evident that careful investigation is necessary to avoid classing an instance of congenital want of one or more limbs under a wrong head, the difference between arrest of development and spontaneous amputation being often extremely difficult to determine.

On examination of the most illustrative and authentic cases, I find that only three safe and distinct signs can be considered as proofs of spontaneous amputation: 1. The presence of a scar at the end of the stump, such as is usually seen on the healed end of a limb amputated by the surgeon, the appearance of the remainder of the stump being in accordance. The scar is often found retracted and central, which is owing to the peculiar mode of detachment, the encircling ligature often first dividing the deeper parts, muscles and bones, and lastly the skin. 2. The detection of the cause of the amputation, either on the fetus or in the afterbirth (ligaments, cicatrices, dermatitis, amnitis). And 3. The discovery of the detached limb among these-

cundinae, its size being generally much less than that of the main portion of the limb. The comparatively rare discovery of the two last-named evidences is probably owing to the negligence of the attending midwife in examining the afterbirth. All other signs can only be of value if, when taken in conjunction, they serve to prove one of the above-named corollaries.

To recapitulate, the theories propounded as to the origin and nature of the congenital absence of a portion of a fetal limb are the following:—

a. Arrest of development (Haller).

b. Gangrene (Chaussier, Richerand, Barlow, &c.).

c. Detachment by means of ligaments (Montgomery, Simonart, &c.);

Detachment by means of amniotic folds (Gurlt, Braun, Jenson).

d. Constriction in consequence of cicatrices produced by dermatitis (Simonart, Kristeller).

e. Fracture (Simpson, Martin).

f. Arrest of development through cicatrices of inflammatory origin (Virchow).

g. Constriction through the umbilical cord (Montgomery, Simpson, Velpeau, Chailly, Cazeaux).

h. Abnormal shortness of the cord (Bartholinus, Velpeau, Chailly, Cazeaux).

The present case I consider to belong to the second chief class, comprising those instances in which only partial or incomplete division has taken place, and concerning the cause of the deformity to come under subdivision c, that is, I believe the fibrous band found stretched across the palm to be the remnant of a ligament, cord or amniotic fold (which, I will not determine) which formerly enveloped the whole metacarpus, and, chiefly constricting the softest parts, viz., the borders of the hand, there became adherent by means of a superficial dermatitis. That the band was not adherent, and that there is no furrow in the middle of the palm is quite natural, the contraction of the borders causing the middle of the hand to form a deep groove, over which the cord stretched. The remainder of the constricting band, not pressing so deeply into the more resistant dorsum of the hand, did not adhere, but gradually became atrophied, was detached and lost amid the secundinae. G. Braun (*Wien. Zeitschr.*, 1854) even thinks that such detached and atrophied ligatures may disappear (be dissolved) in the amniotic fluid. The nature of this band I will not attempt to determine; however, the microscopical examination showing the presence

of fusiform cells and epithelium rather speaks for its amniotic origin. To this opinion I incline as the most probable, notwithstanding the absence of any apparent sign of inflammation or exudation on the internal surface of the amnion; such a sign, however, must generally be more or less minute, and may be easily overlooked or destroyed by the rupture of the membranes.

A cicatricial band caused by dermatitis may, I think, be left completely out of view, there not being the least sign of cicatricial tissue at any spot of the encircling furrow. Besides, it would be difficult to understand how a dermatitis of the palm should be able to form a distinct and continuous furrow around the whole hand.

The band must have been formed at a comparatively late stage of pregnancy, for the constriction was but slight, and the whole hand well shaped and not retarded in its development. The circular impressions on the fingers are probably results of the same process, with the difference that the ligature, being doubtless very thin, did not become adherent, but caused only a slight constriction, was then torn by the movements of the foetus, gradually detached and lost. The deformity of the left hand, evidently an arrest of development, might seem favorable to the supposition that the abnormality of the right hand is owing to the same cause. Besides the difficulty of explaining the origin of the constricting band, the whole aspect of the hand, its shape and size, refute the idea of arrested development. It is also a well-known fact that irregularities of formation frequently accompany instances of spontaneous amputation, except where the latter is produced by intra-uterine fracture.

A very similar case is reported by Montgomery, in which both hands are constricted by still extant complete ligatures. So far this seat of spontaneous amputation has been rarely witnessed, the separation occurring most frequently in the fingers and toes, then in the forearm and lower part of the leg, and, lastly, in the upper arm and thigh.

I therefore think myself justified in considering this to be a case of partial spontaneous amputation in utero of the metacarpus and the three middle fingers by means of a fibrous band.

To attempt to offer a definite explanation of, or advance a new theory on this question on the strength of this case, would seem rather preposterous. The only object of this paper is to offer a new contribution

to the solution of a problem which, if it have no practical utility, still is of great scientific interest.

### THE CAROLINA SISTERS.

By J. B. S. JACKSON, M.D., Boston.

THE two girls, united by the lower part of their backs, who have been exhibited in various parts of this country and in Europe almost from the time of their birth, are now in this city, and the following notice of them may perhaps interest the readers of the JOURNAL. There are also some important points that have not been referred to in the published reports of them, or that have, I think, been incorrectly stated. Dr. Geo. J. Fisher, of Sing Sing, N. Y., has re-published, in his very complete "Essay on Compound Human Monsters" (Albany, 1866), Prof. Miller's description of them when they were two years old (*Southern Med. and Surg. Journal*, February, 1854), Dr. Ramsbotham's when they were five years old (*Med. Times and Gazette*, Sept. 29, 1855, London), a letter to himself from Prof. Chas. A. Lee, of New York, in 1866, and his own observations during the same year. Dr. F. Minot, also, of this city, saw and examined, *per vaginam*, two united black children, and reported the case to the Society for Medical Improvement in May, 1855. His report was never published, but the Records state, in a line or two, that he found one anus and two urethral orifices. These were probably the same individuals after they had been kidnapped, and when they were on their way to Europe. And, lastly, Sir James Y. Simpson refers to them in a lecture on Viable United Twins, published in the *British Medical Journal*, March 13th, 1869, and to which my attention has been directed by Dr. Parks.

The female attendant, who stated that she had been with them during the last five years, and at different times in former years, was not the show-woman, but appeared to be a perfectly trust-worthy person, and from her I have obtained, on close inquiry, the following facts. She was herself the slave of the gentleman in North Carolina who bought the girls when they were a few weeks old, and about two years afterwards the rest of the family. She, of course, knew them from that time, and subsequently their mother, who was a large, fleshy woman, had had fifteen or sixteen children, and said that her labor, when these united children were born (July 11th,

1851) was as easy as any that she had had—the birth occurring before the arrival of the doctor. Their names being Christina and Millie, and their estimated weight at birth being about 17 lbs., that of C. was estimated at about 12 lbs. M. was so much the smaller of the two that their mother used to say that if it were not for the legs and arms she should say that instead of a second child there was only a "knot" on C.'s back. The union not being strictly back to back, they naturally favored the position to which they inclined; and as this tendency has increased, their mode of progression has come to have more of a side-way direction. The hips are now so far separated upon one side that two fingers can be passed in between them, but upon the other there is only a crease. They feel hunger and thirst, and a call to evacuate the bowels or bladder simultaneously; neither one knowing whether her own organs or her sister's are being evacuated. Prof. Simpson states that when he saw them in 1856 the call to evacuate these organs was not cotemporaneous. The attendant here, however, is quite sure that such is now the case, and that one stream of water only is passed. In regard to this last point, if there are two urethral orifices, as observed by Drs. Minot, Simpson and Ramsbotham, and of course two bladders, it seems hardly possible that these last should be evacuated separately, if the connection between the two organs is such that the call is simultaneous; and, as to the fact, the subjects themselves may be mistaken, as well as the attendant. The connection is through the nervous system, but in the case of the intestines the organs themselves must unite not far above their termination, and this last is so sensitive a part that the call might very well be simultaneous, and it might often if not generally happen that neither individual would know whether the discharge was mainly from her own bowels or her sister's. Menstruation began when they were fourteen years old, and is in every way regular, but with some occasional pain, which is felt by the two. The breasts are well developed, and this is evident. The amount of menstrual fluid discharged at each period, and also the amount of urine that is evacuated, is not greater than it would be in the case of a single individual. Drs. Simpson and Ramsbotham state that there was a single vulva, with two vaginal orifices and two clitorides. That hunger and thirst should be experienced simultaneously when the digestive organs are almost entirely separate, and when the vas-



cular connection must be so trifling, is certainly very remarkable. For some years they lay upon one side, and their heads in consequence became somewhat deformed; but they have since lain upon either side, though of course inclined more towards the back when upon the divergent side; and one may be talking and laughing with those about her whilst the other is sound asleep. Their general health is quite good, and the most severe sickness that they ever had was the fever and ague, when the chills were simultaneous and also the heat. One alone may have a slight headache, as from indigestion; but, if severe, it is felt by both. The effect of a cathartic upon one when given to the other the attendant knows nothing of, as since she has been with them one half of any such medicine has been given to each when required. Their weight within the last month was 170 lbs. M. was very much the smallest in early life, as above stated, and C. could raise her from the ground and walk off with her, but she has not done this for the last year or more, on account of the strain; M. having gained upon her sister, so that now the difference between them is not great. M., however, wears a boot that is one size smaller than C.'s. Having seen the girls several times, and finding that it would be entirely out of the question to get a vaginal examination, I requested the attendant to make one, with instructions; but, intimate as she is with them, she had no better success than myself. She had examined them, however, at some former period, and stated that the united vulvæ were no larger than they would be in a well-formed girl of their age, but that they were fairly beneath the pelvis, so as not to be visible when looked at from the front. There was also one anus, upon one side, and about one and a half inches from the vulvæ.

The above statement having been made by the attendant, the following observations were made by myself. They are quite, though not deeply black, rather short, and have the appearance of robust health. The inclination toward one side is considerable; and that side being called the front, it may be stated that they incline to rest upon the back legs, and I saw them walk upon these whilst they held up the front ones. Like crabs, their walk is rather sideways than forward and back. The feet and legs of C. are of about equal size, and each foot comes quite to the end of her boot; but M.'s front leg is considerably smaller than the other. The fore-legs seem to be shorter than the two others, so that the

heels of the first do not touch the floor when they stand squarely upon the last; but this seems to be connected with a strong lateral curvature of the spine, that exists in each of the girls, and that probably results from the constrained and twisted position that they naturally assume; the front hips being considerably higher than the two others. They not merely walk rapidly about the room, but they waltz together, and rather gracefully; and they seem to have very little difficulty in the sitting position. I saw them touch their lips, but they cannot do it as easily, they say, as in former years. The divergence of the hips posteriorly, and the convergence anteriorly, is quite marked through the clothes. The union has generally been said to be by the sacrum; but Prof. Lee has described it as extending to the lumbar vertebrae, and I should fully agree with him. The dress being so arranged that the union could be seen as well as felt, and there being, as usual, very little subcutaneous fat upon the median line, so that the spinous processes were readily felt, it seemed, after observing the position of the lower ribs and the ilia, as if the spinous processes of the third lumbar vertebrae might be in contact; but the deformity from the curvature of the spine is such, that with the imperfect examination that is allowed it is impossible to determine this point satisfactorily. When the lower extremities of either one are touched the other feels it, but she cannot so far locate the sensation as to say whether it is the foot or leg that is touched. There must be an intermingling of the nerves of sensation at the lowest part of the spine; and this would probably be explained, as Dr. Wyman suggests, by the fact that these nerves arise from the back of the spinal marrow, and might naturally blend, as the subjects are united by the backs; but the motor nerves, arising from the anterior columns, are not so connected that one of them can move the limbs of the other. Their lips are of the thickest African cast, but their expression and conversation are cheerful, their manners agreeable, their frontal development good, and they show as much intelligence as we should expect to find in most girls of their age; their characters having probably much improved since they were seen by Prof. Simpson. At one of my visits I found them at work, and M. was sewing with her left hand; her habit, formerly, having been to use this hand much more than she does at present. Their voices are harmonious, and they sing with fine effect. In consequence of the lateral

inclination of their spines the chests are very considerably deformed; the backs of each toward the front, or converging side, being perhaps flattened, and the ribs and scapulae of the two other backs very prominent. The front of each of their chests is short in the vertical diameter, rounded and prominent. The heart of M. has been positively stated to be in the right side of the chest; but I could not feel persuaded of this, though there is evidently some displacement. This last may, perhaps, be owing to the distortion of the chest, though nothing of the kind is observed in C. Vesicular respiration was heard upon each side of the sternum; and the second sound of the heart was about as loud upon the right side of the chest as upon the left, but it was loudest over the sternum. The impulse could not be felt. Feeling this doubtful as to the position of the organ, I suggested to Dr. Bowditch to visit the girls and to examine this point, and he writes to me as follows:—

"Millie was unwilling to remove her dress.

"As far as I could examine her heart it seemed about in the usual place, perhaps a little more towards the centre than usual, but I thought undoubtedly at the left of the sternum."

The pulse of C. was 72, and that of M. rather less.

In the early part of the last century a very similar case occurred in Europe, and is well known to all who have paid any attention to the subject of monstrosities. I refer to the "Hungarian sisters," who lived to the age of 21 years; and, as they are so generally known by that name, it would seem proper to call the girls here described the "Carolina sisters."

#### INSENSIBILITY TO PAIN FROM MENTAL CAUSES.

By T. W. FISHER, M.D.

THE question of the extent to which mental conditions, and especially insanity, can mask physical suffering, has been lately revived, during an investigation, by a committee of the Legislature, into the causes of the death of James Parks, at the Taunton Lunatic Hospital. This patient was arrested by the police of Cambridge while dashing about the streets, on horseback, under acute maniacal excitement. He was heard to ride into a fence, it being dark at the time, and was afterwards arrested, receiving several severe blows on the head. At

the hospital, during a struggle with the attendants, whom he assaulted, he received further injury, and died the day after his admission. At the autopsy fourteen ribs were found broken, a part of them on each side of the chest anteriorly, and one lung was found punctured and collapsed. The evidence established, indirectly, the existence of injury to the chest before admission, a large ecchymosis having been noticed over the seat of fracture, on one side, but no expression of pain on the part of the patient led to an examination for deeper injuries. In the struggle at the hospital the lung was punctured, as evinced by a change in respiration with emphysema, and more ribs were probably broken.

The medical opinions concerning the mechanical disability arising from fractures of the ribs, the rate of progress in infiltration of tissues, and other incidental questions, were interesting, but need not be detailed here. In regard to the masking of pain by insanity, Dr. Morrill Wyman, of Cambridge, who saw Parks soon after the arrest, said he did not think his mental condition could have concealed the pain he must have felt from such numerous fractures, and during such movements of the arms as were made in his presence.

Dr. Walker, of the Boston Lunatic Hospital, testified to the fact that insanity, in all its forms, may mask the pain from disease or injury of the most aggravated character, and gave instances occurring in his own experience. He did not consider it improbable that Parks's state of mind might have prevented any suffering from injuries as severe as those disclosed at the autopsy, and under such exertions as he is testified to have made. He further stated, that an insane man might complain of visible and prominent injuries, like those of the scalp, without calling attention to others more deeply seated and severe.

Dr. Fisher stated that immunity from pain, by reason of mental disease in most of its forms, was a well-known fact and matter of record. That cases of more extensive fractures of the ribs than the present, without evidence of pain, had been reported, and that this class of fractures was peculiarly liable to be concealed. That the movements testified to in this case, such as raising a window, were not the most difficult to perform under the circumstances, and called attention to the fact that after the injuries were known to exist, Parks raised himself in bed with his hands behind him—a movement involving the pectoral muscles.

Dr. Shaw, of the Massachusetts General Hospital, related instances of patients who, in delirium, had thrown their wounded limbs against the wall, or jumped from bed, and walked on recent stumps. Also cases when, in the presence of other injuries, the patients not being insane, fractures of the ribs had been overlooked.

Dr. Choate, of the Taunton Hospital, presented records of parallel cases occurring in New York, when, under daily surgical supervision for weeks, including an operation in presence of a class of students, extensive fractures of the ribs were undiscovered.

The testimony of Dr. Tyler, of the McLean Asylum, was not heard by the writer, but is understood to have been of similar purport.

Probably no psychological fact is capable of such complete and startling illustration, as that of the endurance, or the loss of sense of pain, under certain mental conditions. From the time of Hippocrates, who first recorded insensibility to pain, as a symptom of insanity, to the present, medical literature contains frequent examples of it. The attempt has even been made to show the existence of this symptom in the majority of cases of insanity. It is a fact that such insensibility occurs in some degree in most forms of insanity—and from various causes, which it is important to analyze.

For instance, there may be actual paralysis of sensation, a condition of true anaesthesia; or, on the contrary, sensation may be perfect, and the seeming insensibility be due to a careful repression of the signs of pain for a specific purpose, as in some cases of hysterical paralysis. Between these extremes come various degrees of indifference to pain, the result of mental pre-occupation in some morbid train of thought. There may also be the indifference of frenzy, the current of emotion admitting of no interruption, and the indifference of stupidity and dementia. The pain may be felt, but misinterpreted, by the diseased mind, and referred to some fanciful source, thereby being discredited.

In these and other ways, the exhibition of suffering among the insane is to a large extent prevented, and the utmost watchfulness is required on the part of medical attendants to discover the actual condition of parts and organs, of which, among the sane, the sense of pain is such a valuable index. Painful diseases, such as peritonitis and prostatic enlargement, may run

their course with few of the rational signs. The pain from distention of the bladder often fails to give rise to any signs of suffering referable to that organ. Phthisis is quite uniformly a masked disease among the insane, being unaccompanied from the first to the last by pain, cough or sputa. The above remarks do not admit of a sweeping application, since many of the insane feel more acutely than others.

The most common cause of actual anaesthesia is general paralysis. In the early stages of this disease, before the loss of motion is very observable, it may be well marked. It renders the patient regardless of exposure to extreme cold, to burns, injuries, and minor surgical operations. If under the influence of delusion at this time, self-mutilation may be deliberately inflicted. Pulling out of the intestines, gouging out the eyes, and sawing off the penis with a board, are a few of the eccentricities in which such patients may indulge.

Anaesthesia may likewise exist in melancholia, being shown by indifference to cold, to the discomfort of lying naked on the floor, or of standing motionless from morning to night. Melancholiacs often resort to painful methods of suicide. Forbes Winslow relates a case of experimental suicide, in which the patient tried various plans, up to the point of unconsciousness, with the humane intention of recommending the best to his fellow sufferers! In dementia, the indifference to pain depends upon the extent of the mental obscuration. In mania, the condition bears less resemblance to anaesthesia; or if it is of this nature, the state is transitory and fluctuating, according to the rate of the cerebral currents. Motory activity, however, is not always a safe index to the rate of psychical processes. The maniac may be outwardly calm, and perhaps coherent, at the moment when his mind is at its intensest point of activity. In this state there is no room for the consciousness of pain, and the patient may disregard the existence of severe injuries with a *sang froid* truly deceptive. I have seen such an one chew the burning ends of a card of matches with apparent relish.

This indifference to suffering is not, however, solely characteristic of insanity, since it is but an exaggeration of conditions not regarded as altogether abnormal. I need only mention the convulsionaires of St. Médard, victims of one of those moralepidemics in which religious ecstasy produces an abolition of pain, with a wonderful exaltation of the power of endurance. The Book of

Martyrs furnishes many examples of a similar kind. A like condition obtains among the heathen and savages who use self-torture as a propitiatory exercise. There is a state of anaesthesia resulting from extreme peril, in some instances, of which Dr. Livingstone's account of his sensations while in the jaws of a lion is an instance. But war furnishes, on a large scale, the best examples of endurance and disregard of suffering.

The emotions developed during a battle are various. In a few constitutionally timid natures, they are of the most distressing character. Fear is imprinted on every feature, and every limb is a tell-tale. The term *demoralized* is strictly and scientifically applicable to such cases. In one instance under my own observation, an attack of mania was induced. A soldier, under unexpected fire for the first time, suddenly clubbed his musket and struck out furiously among his comrades, yelling all the while as if in the midst of the enemy. On being led out of the fight, the delirium subsided, leaving a condition of stupor which lasted several hours. He subsequently became a good soldier. In the same fight a young man became so exhilarated as to offer to stand guard all night, on account of his sleeplessness, the rest of the regiment being completely exhausted. He has since died of apoplexy.

In the mass, the excitement does not exceed the limits of self-control, but serves to keep each man up to his duty, and makes all more or less careless of danger, and indifferent to ordinary wounds. This is especially the case if the fight goes well. For instance, a soldier lies in an ambulance, with a bullet among the bones of the tarsus, shouting, "Dig away, Doctor, and damn the pain! we've licked 'em!" Or a delicate drummer boy, with a large flap of integument torn from his knee, requiring tedious dressing and many stitches, asks meanwhile for a pencil, to make notes in his diary of the occurrence! On the other hand, a fellow, with all the signs of cowardice, comes up with the right fore-finger shot off, and an empty gun-barrel. A self-inflicted wound is diagnosed, and amputation at the joint proceeds, amid contortions and frantic exclamations of pain, while all around lie the severely wounded, with scarce a groan among them.

Such strong contrasts illustrate forcibly the influence of mental conditions upon sensibility to pain. It is a common error to enlarge the sphere of consciousness beyond its true limits. Consciousness and cerebral activity are by no means co-extensive. Not

only do organic processes and automatic actions go on unperceived, but unconscious trains of associated thought occupy the mind largely, awake as well as asleep. A certain degree of intensity in a nervous impulse seems necessary to a sense of consciousness, though of the laws which govern this matter we know little, and have slight control. Ideas and sensations rise into consciousness apparently at random, when not evoked by a direct effort of the will, or forced on the mind by their intensity. Pain is a sensation which in ordinary states has an element of intensity sufficient to excite the attention powerfully, but in abnormal conditions the brain seems under the absorbing control of centric agencies. Whatever these agencies are, whether changes in the circulation, or the cell nutrition, or the nervous currents, the results resemble, to some extent, artificial anaesthesia. Nature, however, more skilful than man, applies her anaesthetics so delicately as to produce more exact localizations of effect.

In the more permanent anaesthesia of insanity, we look for more visible and lasting changes of structure, such as atrophy of the nervous elements, abnormal growth of the connective tissue, or varicosity of the capillaries.

The subject, so hastily sketched, presents a field for more careful observation, and its phenomena should be fruitful of something besides incredulity or surprise.

#### A COMBINED WIRE SPECULUM AND RETRACTOR.

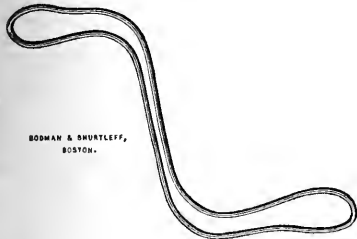
By FRANCIS H. BROWN, M.D., Boston.

A FEW weeks ago, I was asked by Dr. Waterman to assist him in a vaginal operation, which required the passage to be fully shown, and which promised to be, and, indeed, was quite protracted in its performance. I took occasion to suggest employing a simple wire speculum, which would answer the additional purpose of a retractor, in place of the Sims and Boston (Storer) specula and the copper spatulae he was proposing to use. He carried out my idea by bending a stout wire on itself, and then shaping both folds nearly into the form of the letter S; and thus got a very excellent and serviceable instrument.\* Afterward I made, more carefully and after some experi-

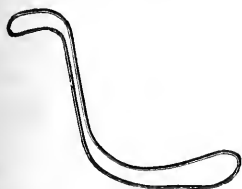
\* For sundry suggestions regarding this retractor, I am indebted to Dr. Waterman, and a considerable part of the merit of the instrument—if merit exists—is due to that gentleman.

ments, the two forms of the instrument which I now describe.\*

They are made of iron wire, joined by hard solder and then nickelized; the larger the size of a No. — catheter (French), the other of No. —. The general description of the larger instrument would be that it is a *skeleton Sims's speculum*; very nearly of the same size, and with the same curves; the two handles turning in opposite, instead of the same direction; and one blade somewhat shorter and narrower than the other. The instrument made from the smaller wire is, generally, smaller, and has one of its ends, proportionally, shorter; otherwise its general shape is the same.



The objects for which I propose these instruments, are the following:—Singly, the larger instrument has been found well adapted to take the place of Sims's speculum. It displays the vagina equally well; it is much lighter; equally strong; and no less easy of application. The two together, as retractors or in place of the copper spatulae, have served well to dilate the vagina, and bring into view every part of its wall, up to the cervix. Of course, this use presupposes one or more assistants; but, when



so employed and guided by the eye of competent helpers, they fill, more satisfactorily than the bivalve and multivalve specula,

\* In photographing from the instrument to the block, it was necessary to turn the retractor on its long axis, in order to show its fenestrated character; as a consequence, the electograph shows less curvature in the handle or upright portion than actually exists; in fact, it very closely resembles the same part in the Sims's speculum.

the place of these instruments, while they are more fully out of the way of the operator. They have, moreover, the additional advantage over the common copper spatulae, that they have no sharp edges.

Singly the instrument may, not infrequently, be used to hold and render tense the vagina, and, by its fenestrum, bring into clear view and make prominent an abscess or small tumor, an ulcer or fistula, on which one desires to operate, much as the fingers of the operator or assistant would do on the external surface of the body. It may, not inaptly, be employed after rupture of the sphincter ani for the display and operations on internal hæmorrhoids and ulcers of the rectum, or the internal opening of a fistula in ano. The retractor will be found a useful aid in searching, by means of its fenestrum, for vesico-vaginal fistulae—which, as is known, sometimes baffle the search of the surgeon for a considerable time.

The smaller instruments are to be used especially as retractors, to hold aside the edges of wounds during various operations for the removal of tumors, ligature of arteries, &c., and to keep out of danger arteries, veins, nerves, and similar important parts. The smaller retractor answers the purpose of the wire tongue depressor, devised by Dr. Allen, of Cambridge, and serves as an admirable retractor to draw aside the cheek or lips in various operations about the mouth and maxillary bones.

A still farther advantage of these instruments is their very trifling expense; the whole set of four being furnished by our instrument makers at a sixth part the price charged for any of the elaborate forms of specula.

## Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 8, 1869.

### M. CLAUDE BERNARD ON THE ACTION OF ANÆSTHETICS.

FROM a lecture of M. Claude Bernard on the action of anesthetics—published in the *Gazette Hebdomadaire*—we translate the following statements.

Ether and chloroform, which put the animal in repose by suspending the action of the nerves of sensation, have also a direct action on certain orders of movement inde-

pendent of the nervous system. Vibratile cilia exposed to anæsthetic vapors cease to perform their function; and the same is the case with the spermatozoa. This influence of anæsthetics is not permanent, the cilia and the zoöspers recovering their properties after a little while. \* \*

The absorption of anæsthetics should be in excess of their elimination. For the production of anæsthesia, it is requisite that the anæsthetic should, 1st, reach the arterial blood; and, 2dly, should be in excess. \* \* \* \*

When animals are made to inspire rapidly a considerable quantity of chloroform, the arterial blood becomes almost instantaneously black. M. Claude Bernard says that in this condition there is suffocative anæsthesia. When, on the contrary, the anæsthesia is produced by slow and gradual inhalations, the blood remains red, and yet the animal becomes no less insensible. \* \*

Now, to determine the anatomical element on which anæsthetic agents act—In the first place, the perturbation produced in anæsthesia must be quite profound, since violent poisons do not kill the animal experimented on in that state. Thus prussic acid—the rapidity with which it causes death is well known—injected subcutaneously, leaves a rabbit unharmed during the anæsthetic sleep; thus, also, the spinal marrow may be to a great extent destroyed without the anesthetized animal seeming to be affected by this mutilation, to which it would necessarily succumb in the waking state. We may say, consequently, that the animal is lowered in the scale of being (*amovobri*) during the anæsthetic sleep; bearing mutilations, as the inferior animals bear them, he has taken a step downward in the hierarchy of living beings. We shall shortly see, in fact, that it is precisely that nervous element, which constitutes its superiority, which has been abolished [for the time] by the anæsthetic.

M. Bernard then goes on to cite a series of experiments, all upon frogs, to prove that it is the action of anæsthetics upon the nervous system which produces the peculiar effects of those agents. The first two of this series of six we now give.

No. 1.—A frog, intact, is plunged into water containing a half-hundredth part of its volume of chloroform. Whether immersed by means of its hind quarters or by the front part of its body, it is rapidly and *in toto* anæsthetized. It is evident, then, that the toxic agent is absorbed by the skin.

No. 2.—The aorta having been tied at the pelvic region, the body is then tightly girdled by the same ligature, a sort of division of the animal into two distinct parts being produced. The sacrum is then removed. Thus the two portions of the frog—the anterior and the posterior—communicate only by the two lumbar nerves. Now when the posterior portion is plunged into the solution of chloroform, no effect is manifested in the anterior or upper part. When, on the contrary, the head is placed in the same liquid, anæsthesia rapidly pervades the entire body. Consequently, it is to be inferred that anæsthetic action takes place from the nervous centre to the periphery by means of the nerves, but not from the periphery to the centre. \* \* \*

M. Bernard takes up the inquiry how far the anæsthetic sleep resembles normal sleep. Divers experimenters have observed in anæsthesia, sometimes anæmia, sometimes hyperæmia of the brain. These contradictory phenomena find their reconciliation in the mode of administering the anæsthetic. We have seen, he says, that in administering the chloroform rapidly (*brusquement*) suffocative anæsthesia is produced; and that state necessarily involves cerebral turgescence. If, on the contrary, the anæsthesia be induced gradually, the supply of blood in the brain is diminished, as happens to any other organ which discontinues its functions. Thus, he remarks, we obtain, in the first case, by the turgescence and the compression produced by the venous blood, an effect analogous to, or identical with, that which in the second case is brought about by the abstraction of blood. [We would ask, with becoming diffidence, if it would not be allowable at least to ascribe the speedy anæsthesia in the one case to the benumbing influence of the chloroform given in large doses and acting directly on

the nervous centre, but aided no doubt by the turgescence produced by the asphyxia; and the gradual anæsthesia in the second case simply to the slowly advancing direct action of the agent, the anæmia following in the wake of that direct action?—Ed.]

After having removed, M. Bernard goes on to say, the top of a rabbit's skull, the meninges being drawn aside, and the brain exposed to the extent of five centimetres, hernia of the cerebral substance is seen to take place every time the animal is excited, to disappear as soon as the excitement is over. When an animal is anæsthetized the same cerebral protrusion is seen to coincide with the first inspirations—i.e., the tendency to hernia is manifest. But as soon as calmness occurs, anæmia is produced, and the cerebral substance settles down within the cranial cavity.

Should anæsthesia be attributed, he now asks, to perturbations of the cerebral circulation? [This involves essentially the same question we put in our preceding brackets.—Ed.] The point, he replies, is not demonstrated. The tangible fact is that these perturbations exist; but the intimate relation of cause and effect is not a necessary inference. What we know for a certainty is, that particles of an anæsthetic agent are introduced into the blood in such a manner as to bathe the nervous centre, and that they produce there a functional arrest in the sensitive cells; also, that a nerve injured (*touché*) at its central extremity dies, while its death is not produced when the peripheral extremity is injured; although *apparent* death is evinced from the periphery to the centre. \* \* \*

Upon the question of the influence of anæsthetics on motory action, M. Bernard exhibits animals anæsthetized in different degrees. In some, sensibility has ceased while reflex movements continue; in others anæsthesia is pushed to the abolition of all movement, there being complete prostration.

EMENDATIONS.—We call attention to the emendations of our last editorial. They may be found under the head of "errata and corrections." Possibly our inadvertence as to the language used grew out of the fact that our attention was chiefly occu-

pied with the subject-matter. We take occasion to say that all our statements relative to drugs were subjected to the scrutiny of two of our first druggists, by whom they were verified or corrected.

REMEDY FOR WHOOPING COUGH; EXHALATIONS FROM LIME WHICH HAS BEEN USED IN PURIFYING BURNING GAS.—In our issue for May 13th we quoted from the *Dublin Medical Press and Circular* certain remarks of Oppolzer with reference to the treatment of pertussis. The following is the concluding paragraph of those remarks. "In conclusion, it may be stated that of late many French physicians recommend the exhalations from lime which has been used in purifying burning gas, or, better still, gazéol. Oppolzer has had no experience with these remedies." The day after the publication of this we received from Dr. J. B. S. Jackson a note informing us that a distinguished gentleman of this city had had some remarkable experiences with the remedy mentioned in the caption to this article, and we immediately wrote to that gentleman upon the subject. We received a prompt reply, referring us to his family physician—Dr. George Hayward. Dr. Hayward has now kindly looked up his notes relative to the matter, and sent us the following letter.

We trust some one of our chemists will inform us of what agents the emanations in question are composed; and also that the remedy will be put to the test in the next epidemic of pertussis.

Mr. Editor.—In answer to your inquiries I would state that my attention was first called to the subject by seeing, in the latter part of 1864, in some foreign journal, a statement of the beneficial effects produced on children suffering from whooping cough by causing them to inhale the fumes arising from the lime that had been used to purify illuminating gas.

On Saturday, December 24th, 1864, a patient of mine, a boy aged nine years, who had had whooping cough four weeks, became so ill that I determined to try the experiment of taking him to the Gas Works. From memoranda made for me by his mother, at the time, I find that for a week before this he had coughed very hard, doing so nearly every half hour during the afternoon and evening, and six or eight times during the night, vomiting with almost

every paroxysm; had taken little or no notice of his playthings; was feverish; had but little appetite; had lost flesh and strength; and was generally quite sick.

I found at the South Boston Gas Works, to which we went as being the nearest, that the only way in which the fumes could be thoroughly inhaled was by taking off the cover from an opening over the drain which emptied the vats of the mixture of lime and water, after it was thoroughly saturated with the impurities of the gas, making a tent of large shawls over the opening, and placing the children, well wrapped up, under the tent. By doing this I was able to protect them from the cold, and at the same time cause them to breathe the fumes very thoroughly, for both their clothes and the shawls over them were soon completely saturated with the smell rising through the opening. Having remained under the tent perhaps fifteen minutes, or rather less, the children were taken to a warm room and shortly after carried home.

After coming from the Gas Works the boy coughed but two or three times during the afternoon and evening of Saturday, and only three times during the night, and did not vomit once. Sunday the cough was much lighter and less frequent; he did not vomit any during the day, and was much more playful than he had been for more than a week. Monday, continued better, and coughed much less. Tuesday and Wednesday, not so well, more cough. Thursday went to the Boston Gas Works, after which the paroxysms were less severe, and not so frequent; and, though he occasionally vomited, the cough never was so bad as before he went the first time. Went to the Boston Works again, and although he stayed but a short time, there was evident relief to cough. Four or five days after went to the Cambridge Gas Works, and remained more than half an hour; the place being more sheltered, and the odor from the lime much stronger than at the other works. After this visit the boy was much better; he coughed but twice the following night, and improved so rapidly that it was not thought necessary for him to visit the works again. The sister of this patient had the disorder decidedly, but much less severely, and with less affection of the general health than he had. She went to the Gas Works but twice; after the first visit she did not cough for twenty-four hours, and never again with the same severity as before; after the second visit she had but one paroxysm of coughing.

About this time I pursued the same treat-

ment with three other very well marked, but not so severe cases as the one first mentioned, with good results. Their father writes to me, "The night after their first visit to the Gas Works they had their best sleep for many nights; and after a second visit we considered the disease as substantially broken."

These five cases I reported at a meeting of the Medical Improvement Society; and, as I wished to obtain all the information possible on the subject, I asked any gentleman present who had tried this remedy for whooping cough to state what had been the result of his experience, but as no one replied I presume that none of those present had then tried it.

Since then I have almost always recommended this treatment in whooping cough, and, where it has been fairly tried, it has usually been successful; sometimes so in a very marked degree. I quote some cases from memoranda now before me. In July, 1865, a child but two months old was taken with the disease, whooping unmistakably. He was immediately taken to the Dorchester Gas Works, where the dry purifiers are used. "The child was taken three times within ten days; and we stopped going because the disease had ended. It never ran its course." Three years after, this same child was exposed to, and took, whooping cough again from a servant in the house. He was taken to the Gas Works again, and after two or three visits the disease was again broken up. The same result occurred the same summer in a child fifteen months old who was treated in the same way. In the case of a young infant, by the recommendation of the agent of the Gas Works a portion of lime obtained from the dry purifier was treated with muriatic acid in a closet, by which a good deal of free ammonia was thrown off, with perhaps other productions of the manufacture of gas, and the infant was allowed to remain a few minutes in the closet. This was repeated about a dozen times, the result being that the cough ceased, being apparently broken up by the treatment.

An elderly Englishman, employed at the South Boston Gas Works, told me that years ago, when he was in England, it was a common practice in some of the towns there, where the mixture of lime and water used to purify the gas was drawn off from the vats in open troughs, for the poor women in the neighborhood, whose children had whooping cough, to hold them over these troughs, that they might breathe the fumes which arose as the fluid ran by;



showing that this has evidently been a popular remedy for whooping cough, in some places, for a long time.

Having mentioned a second attack of whooping cough in one of the cases recorded above, I should say that this is the only one which I know of, although some of the patients have since been very much exposed to the disorder.

The Gas Works at Cambridge and Dorchester seem particularly well suited to the purpose proposed; and I ought to state that both at these Works, and at those in South Boston and Boston, every facility was most courteously given for the experiment; and, in some instances, much interest expressed in the result.

Yours truly,

GEO. HAYWARD.

**EXTENSIVE CONGENITAL DISCOLORATION OF THE SURFACE OF THE BODY WITH DEVELOPMENT OF HAIR.** *Mr. Editor*,—There was recently in the "Mexican Exhibition," now in this city, a bright, pretty little Mexican girl, six years old, the whole upper half of whose body was deeply discolored, with fine, soft hair over a large part of the affected surface and quite a long and thick growth of hair along the outer part of one arm, and just above the angle of the lower jaw upon one side. It was not the intense brown discoloration that existed in the case reported in the JOURNAL two or three years ago by Dr. Arnold of Roxbury, and in which case there was no development of hair; and neither was it properly black, though it perhaps was so in some parts. It might generally be said to be of a very dark steel-gray color. The discoloration extended down to about the elbows and upwards over the back of the head. There were also numerous small, defined, circular, blackish spots scattered over the extremities. The child has now left the city. \*

Boston, June 8th, 1869.

*MR. EDITOR*,—A young woman lately came to me for medical advice, who "had suffered many things"—not of "many physicians"—but from many quacks. Her last experience—and the one which cured her of the quacks, although not of her disease—was with a "*clairvoyante*." The following choice specimen of charlatany I send you in its own elegant English, copied, *verbatim et literatim*, from the original document left with me by the patient.

Yours truly, WM. W. MORLAND.

"———, Jan. 31d 1869.

"Miss ——, At the request of Mrs.

——— We have taken your hair to examine,

as she could not attend to it by sickness in her family, her Husband and Daughter were both taken sick, and we were call there to attend them and she gave us the hair, and requested us to examine it. We find on examination of your hair that there is a good deal of humor in the head and round the secretion of the throat, there is humor on the nerve of the ear that conveys the sound from the Drum of the ear to the brain causes those noises, and all other bad feelings in your head, you have catarrhal trouble, but that is not occasion of Phelm in the stomach, there is canker all about the throat Lungs & Stomach, the coating on the Liver is very thick, it is very inactive, the Kidneys do not do there office as they ought to, the oil of the blood is watery, the midriff dose not assist the Lunges, the bowels are very inactive state at times, We think the Povity of the blood causes very many pains and aches about you, your blood has commenced to change and you are all riled up, it turns the Middle of march, We would not advise you to take any more of the snuff at Present, We will Leave the head as it is and doctor the blood witch will be the surest way to assist you. We would recterment the following things for a syrup."

This delicious composition breaks off abruptly here, the patient having torn off the prescription of "things for a syrup," at the time she received the letter. *Mr. Editor*, isn't it almost time to emigrate?

W. W. M.

To "SUBSCRIBER."—In Johnson's Dictionary (A.D. 1838) the *feudal* employment of the word in question is so described as to explain the now current popular use of it. We do not claim authoritative usage for our application of what has become almost a "slang" term; nor did we intend elegant writing in the connection where we put it.

**VERMONT MEDICAL SOCIETY—SEMI-ANNUAL SESSION.** (Reported by L. C. BUTLER, M.D., Secretary).—The Vermont Medical Society held its semi-annual session for 1869 at Brandon, June 2 and 3. The President being absent, Dr. E. D. Warner, of New Haven, was elected President *pro tem*. Dr. Joseph Bates was present as a delegate from the Medical Society of New York, and Dr. S. W. Butler, editor of the *Medical and Surgical Reporter*, Philadelphia, both of whom addressed the society.

Drs. F. W. Page, of Brandon, L. H. Hemenway, of Manchester, E. P. Squires,

of Shoreham, and T. J. Ketchum, of Pittsford, were elected members of the Society upon recommendation of the Board of Councillors.

The sessions of the society were mostly occupied in the presentation of cases in practice and in informal discussion of them.

Dr. Cushman, of Orwell, presented a written report of cases of disease of the *ileo-cæcal region*, occurring under his own observation, which gave rise to an interesting discussion, mainly upon the proper use of cathartics in such cases. Dr. Brush would avoid cathartics, and would follow an emollient, expectant treatment, as opiates and alteratives. Dr. Woodward thought cathartics should not be discarded utterly in such cases, for he had known large quantities of worms to be carried away by them, and the patient thereby at once relieved from imminent danger. He mentioned an autopsy attended by him in which a tumor, similar to that mentioned by Dr. Cushman, made up of worms knotted together, was found in the ileo-cæcal region, and was the evident cause of death. None of the speakers would proscribe cathartics, but would advise their cautious use.

Dr. Warner, changing the subject of discussion, desired the advice of the society upon a case of ununited fracture, which he presented somewhat in detail.

Dr. Woodward replied by relating a case in which he had operated unsuccessfully in the ordinary method, but in which he desired to operate again in the following manner, which was original with himself. Having first prepared the surfaces in the usual manner, he would bore each extremity of the bone in an oblique direction and insert styles, the extremities of which being pierced, he would thread with silver wires and bind them together so as to make them tense. The surfaces thus being brought in apposition and retained, would not fail to unite.

Dr. Page presented an interesting case of *non-malignant abscess of the brain*.

Dr. Butler read a paper on the statistics of fever and consumption in the State, in which allusion was made to the theory of Dr. Bowditch, of Boston, in relation to *soil moisture* as a cause of the prevalence of consumption in New England. Remarks were made upon the subject by Drs. Fassett, Allen, Brush and Butler, resulting in the adoption of a resolution appointing a committee of one from each county in the State, to investigate certain questions upon the subject, to be prepared by the secretary. These inquiries are to be directed to the

history, topography of locality, as to dryness or moisture of soil, &c., of every case of consumption occurring within the knowledge of each physician in the State. The committee was constituted as follows: Drs. M. H. Eddy; H. D. Holton; J. S. Richmond; E. F. Upham; G. B. Bullard; S. R. Corey; J. B. Morgan; O. H. Fassett; A. C. Welch; J. E. Macomber; A. T. Woodward; E. N. S. Morgan; M. J. Hyde.

The subject of the use of Anæsthetics in Obstetrics was introduced by Dr. O. F. Fassett, of St. Albans, and elicited considerable discussion, developing quite a difference of opinion among the members of the society in regard to the propriety of their use. The subject was referred to Dr. Fassett to report upon at the annual session in October next.

Dr. Brush presented a paper on the Epidemics of Lamoille County.

The Board of Councillors reported the decease of Drs. S. R. Day, of St. Albans, George L. Ames, of Manchester, S. S. Butler, of Berkshire, and Horace Powers, of Morristown; and appointed Drs. Branch, Hemenway, Hutchinson, and Sutton, to present obituary notices of each respectively at the annual meeting of the Society in October next.

The attendance upon the sessions was not large, but the profession was represented by some of its ablest and most prominent men, more of whom will doubtless be present at the annual meeting in October.

**THE NEW HAMPSHIRE MEDICAL SOCIETY.**—The New Hampshire Medical Society held its seventy-ninth annual meeting, in Manchester, June 15th and 16th. It was called to order in the City Hall on the 15th, at eleven o'clock, A. M., by the President, Dr. Levi G. Hill, of Dover.

The morning session was mainly taken up with business matters. The President's address was delivered at twelve o'clock. It was an able and interesting production, receiving the marked attention of all the Fellows present.

In the afternoon, reports were read from different committees. A very interesting paper was read by Dr. W. D. Back, of Manchester, the orator for 1869, upon the subject of Medical Education and Progress. This paper was keen, learned and eloquent, well sustaining the high reputation of its distinguished author.

Dr. L. B. How, of Manchester, made an elaborate and highly interesting report on Surgery, which met with marked acceptance from all present. At four o'clock, P. M.

an eulogy on the late Dr. Reuben D. Mussey was delivered by Dr. A. B. Crosby, of the Dartmouth Medical School, of which Dr. Mussey was for a long time a distinguished Professor. This address was a very touching and eloquent tribute to the worth and ability of this world-renowned surgeon.

An evening session was held, the time of which was taken up with discussions on miscellaneous medical subjects, of a highly practical as well as interesting character.

Officers elected for the present year:—President, W. W. Brown, of Manchester; Vice-President, W. H. H. Mason, of Moultonborough; Secretary, G. P. Conn, of Concord; Treasurer, Thomas Wheat, of Manchester.

The session on the morning of the 16th, was almost entirely of a business character. M. R. Holbrook, M.D., a delegate from the New York Medical Society was elected an honorary member of the Society. The committee appointed to investigate the charges against Dr. S. B. Kelley, of Franklin, for open and persistent violation of the Code of Ethics which are adopted by the American Medical Association and the different State Societies, reported the charges were fully sustained and a resolution was unanimously passed expelling Dr. K. from the Society.

This annual meeting has been of a very profitable and gratifying character. The attendance of members has been excellent, and delegates were present from New York, Massachusetts and Rhode Island. The able papers read, the rare cases reported and the discussions thereon, cannot fail to be conducive to the advancement to the profession, and therefore to the public benefit.

The eightieth annual meeting will be held on the third Tuesday of June, 1870.

**HARVARD MEDICAL SCHOOL.**—The following is a list of the gentlemen who received their medical degrees on the 1st inst., with the subjects of their dissertations:—

Bell, George, Halifax, N. S., *Diet*.

Borden, Henry Francis, North Bridgewater, *Myopia*.

Carvill, Alphonso Holland, Lewiston, Me., *Acute Articular Rheumatism*.

Elliot, Daniel Mitchel Moore, Pembroke, N. H., *Acute Rheumatism*.

Fichtenkam, Harry Lamartine, St. Louis, Mo., *Procreation*.

Haskell, William Abraham, Illinois, *Lithuria*.

Hatton, George Eversdyke, Dedham, *Value of the Microscope in the study of Medicine*.

Hoooper, Henry, Jr., Marblehead, *Visceral Lesions in Syphilis*.

James, William, Cambridge, *Physiological Effects of Cold*.

Jordan, Francis Gilbert, St. John, N. B., *Croup*.

Kent, Barker Brooks, Jr., So. Boston, *Epilepsy*.

Mead, John Ames, Lowell, *Scarlatina*.

Morrill, Ferdinand Gordon, Boston, *Ectrophy of the Bladder*.

Putnam, Charles Pickering, Boston, *Fatty Degeneration of the Heart*.

Quigley, Wentworth Henry, Boston, *Diagnosis*.

Shattuck, George Brune, Boston, *Cock's Operation*.

Smith, Ira Sinclair, New Haven, *Ruptured Perineum*.

Stone, William Newcomb, Wellfleet, *Acute Dysentery*.

Whittier, Edward Newton, Gorham, Me., *Intermittent Fever*.

In a leading article paying an earnest tribute to the memory of Dr. Alden March, of Albany, the *Albany Even. Journal* says:—

His death, in the full vigor of mental and physical activity and usefulness, will leave a void in this city and in the profession, that will be most deeply felt and deplored. Dr. March was one of the most remarkable and gifted men of his time. No medical man in this country was more widely known, or more highly respected and esteemed.

In a pamphlet on "Physical Culture in Amherst College," by Nathan Allen, M.D., we find these statements:—

1st. There has been a decided improvement in the very countenances and general physique of students. Instead of the pale, sickly and sallow complexion once very commonly seen, with an occasional lean, care-worn and haggard look, we now witness very generally, fresh, ruddy, and healthy countenances, indicative of a higher degree of vitality, and that the vital currents, enriched by nutrition and oxygen, have a free and equal circulation throughout the whole system. This change is so marked as to attract the attention of the casual observer, and has been commented upon by those formerly attending Commencements or other public occasions here, as exhibiting a striking difference between the personal appearance of students at those times, and that at the present day. \* \* \*

2d. In the use of the limbs and the body—in the physical movements and conduct of students generally, there has been, we think, decided improvement. \* \* \*

5th. A comparison of the present health of students with what it was ten or fifteen years ago, shows a surprising improvement. It is rare now for any student to break down suddenly in his health, or to be compelled to leave college on this account. In 1855-6-7 and 8 such cases were common, as may be seen by referring to the statements of President Stearns in the opening of this paper; and the truth of the statements is moreover confirmed by others personally conversant here for twenty or thirty years. \* \* \*

7th. But the most marked evidence of improved health is found in the diminished sickness of every class each year after entering college. \* \* \*

Quetelet, who has devoted more attention to this subject than any other writer, gives the average weight of an adult male 136.993 pounds, and the average height 5.333 feet.

Dr. Gould, who examined a large number of students in the Junior and Senior classes at Harvard University and Yale College, together with some members of the professional schools, reports their average height 5.666 feet, and average weight 139.700 pounds. A. Maclaren, who has charge of the Gymnasium connected with the Oxford University, England, reports of the first one hundred names on his book as they arrived at the University, their average height 5.825 feet, and average weight 132.970 pounds.

A careful inspection of the table giving the vital statistics of each class as it entered Amherst College, and then in its senior year, shows a decided enlargement of the arm at both points of measurement, and also of the girth of the chest, together with a marked increase in the capacity and power of the lungs. It is surprising what a change in several of these particulars some individuals have undergone in their college course.

The exercises in the Gymnasium at Amherst College are subjected to strict regulations, under the supervision of a professor.

HAY-FEVER CAUSED BY VIBRIONES.—In *Firchow's Archiv* (Bd. 46, II. 1 and 2, 1869) a single, perhaps in some respects unique case is described. It deserves attention from the circumstance, that it is

reported by Helmholtz, as it occurred in his own person. He says that since 1847, he has been attacked every year, at some time between May 20th and the end of June, with a catarrh of the upper air-passages. These attacks increase rapidly in severity; violent sneezing comes on, with secretion of a thin, very irritating fluid; in a few hours there is a painful inflammation of the nose, both externally and internally; then fever, violent headache, and great prostration. This train of symptoms is sure to follow if he is exposed to the sun and heat, and is equally certain to disappear in a short time if he withdraws himself from such exposure. At the approach of cold weather these catarrhs cease. He has otherwise very little tendency to catarrhs or colds.

For five years past, at the season indicated, and only then, he has regularly succeeded in finding vibrios in his nasal secretions. They are only discernible with the immersion-lens of a very good Hartnack's. The single joints (Glieder), commonly isolated, are characterized by containing four granules in a row; each two granules being more closely connected, pair-wise, and the combined length equalling 0.004mm. The joints are also found united in rows, or in series of branches. As they are seen only in the secretion which is expelled by a violent sneeze and not in that which trickles gradually forth, he concludes that they are probably situated in the adjoining cavities and recesses of the nose.

On reading Binz's account of the poisonous effect of quinine upon infusoria, he determined to try it in his own case. He took a saturated neutral solution of quinine sulph. in water = 1:740. This excites a moderate sensation of burning in the nasal mucous membrane. Lying upon his back, he dropped 4 centim. of the solution, by a pencil, into each nostril; moving his head meanwhile in all directions, to bring the fluid thoroughly into contact with the parts, until he felt it reach the œsophagus. Relief was immediate. He was able, for some hours, freely to expose himself to the heat of the sun. Three applications a day sufficed to keep him free from the catarrh, under circumstances the most unfavorable. The vibriones, also, were no longer to be found.

The experiment was made in 1867; and was repeated at the first recurrence of the attack in May, 1868, preventing the further development of the attack for that year.

D. F. L.

## HEART DISEASE AND THE TURKISH BATH.—

Another death has taken place in the Turkish bath at Cork, and it has again raised the question as to how far it is secure or judicious for cardiac patients to undergo the violent variations of temperature which the bath involves. It appeared from the evidence that for the previous week, the deceased's appetite had somewhat fallen away and he was not in strong health, though he did not complain. He went to the bath between seven and eight o'clock, was there about three-quarters of an hour, there being other persons in the same room (the auditorium, or intermediate apartment) at the time. Deceased was on a couch when it was noticed that he breathed heavily, and that he was in a fainting state. Assistance was called, and the deceased was removed at once to the outer or cooling room, and restoratives were applied. Dr. Skinkwin was sent for and came immediately, but the deceased had expired before his arrival. In the doctor's opinion (without having made a *post-mortem* examination) the deceased was a man of weak heart and had died from syncope. In reply to the Coroner, Dr. Skinkwin gave it as his opinion that the Turkish Bath was not fit for a person in deceased's condition—with a weak heart. Dr. Barter gave it as his opinion that the bath was beneficial for persons with weak hearts, and said he had several patients in that condition at his establishment at Blarney who took the bath twice a day with manifest advantage. The jury returned a verdict to the following effect:—"That death was caused, as they believed, by syncope, his illness lasting about an hour; and that every attention was paid to the deceased while at the bath."

It was obviously not the function of the jury to declare whether or not persons suffering from heart disease might safely take the bath, but it is nevertheless a question which must be answered by those who say that they may. Without pledging ourselves to a verdict, we must say that the feeling of the profession is greatly against the use of the bath by such persons, and all our present knowledge on the subject is against subjecting them to the danger.

It is, indeed, a great responsibility for those who advise the use of the bath, and it would be well if they could place before the profession some of the arguments which they consider justify them in giving the advice.—*Medical Press and Circular*.

The degree of M.D. was confirmed upon 31 gentlemen, at Detroit Med. College, recently.

NEW METHOD OF TREATING THE PEDICLE IN OVARIOTOMY.—(Extract from an article by J. F. MINER, M.D., in the *Buffalo Med. and Surg. Journal*.) I have proposed for myself, and desire to suggest to others, a plan of separating the tumor from its attachments to the pedicle which appears to my mind as feasible, at least in some instances, and, where practicable, as having decided advantages. A few months since I was invited to remove an immense ovarian tumor occurring in the person of Mrs. Foster, of Cattaraugus county, N. Y. It was of years standing, had been repeatedly tapped, but at length the contents proved too thick to be drawn through the largest size canula, and the distress becoming too great for endurance, any operation which would end it, whatever might be the result, was gladly accepted. The tumor was multilocular, very large, weighing, as near as could be ascertained, between seventy-five and one hundred pounds. It was attached throughout its entire circumference to the omentum, intestines, walls of the abdomen, and all other parts in which it came in contact. These attachments were not so firm but that they could be broken up, and with great care the tumor was separated from the surrounding parts until the pedicle was reached. The process of enucleation had been carried on so extensively and successfully that encouragement was afforded for continued trial; the pedicle was large and extended over a wide surface, but by gentle and patient effort it was separated from its entire attachment to the tumor, and the immense growth removed without the ligation of a single vessel. The terminal branches of the vessels of the pedicle gave out no more blood than issued from the vessels of the attachment elsewhere. All hemorrhage soon ceased, and the incision was closed by interrupted suture.

The success of this procedure was complete, and the patient continued for more than two weeks without an untoward symptom, and her recovery seemed almost certain. She then commenced to lose her relish for food, grew weak and desponding, and died from exhaustion on the twenty-first day after the operation. This fatal termination detracted nothing from the success of this mode of treating the pedicle; indeed, so remarkable was the size and attachment of the tumor that any attempt at recovery is surprising, and yet the patient continued to improve long enough to show that the operation was at least in her case unobjectionable.

## Medical Miscellany.

MR. EDITOR.—A note from Dr. Snow, of Providence, in your issue of June 24th, states that the estimated population of New York (1,100,000), and that of Philadelphia (800,000), as given in the last report [of the City Registrar of Boston], is incorrect—that those “figures are much higher than were ever claimed in those cities, and higher than the truth—very much so.” \* \* I have certainly seen those identical figures recently published, without any doubt expressed of their correctness. Besides, the estimate of the population of New York was furnished me by Dr. Elisha Harris, who may be supposed to be tolerably acquainted with the matter; and that of Philadelphia by Mr. George E. Chambers, Chief Registration Clerk in the Bureau of Statistics of that city. \* \* \*

\* \* \* [By taking] the U. S. Census as his guide, I think [Dr. S.] would have found that not only were the estimates in question not “higher than the truth,” but that they are *probably* below the truth. As proof:—In 1840, the population of New York was 312,710; and in 1850, 515,547, showing an increase during the decennial period of 64.86 per cent. In 1860 the population was 805,658, exhibiting an increase during a similar period of 56.27 per cent. Now, if the population in 1870 were estimated at 1,200,000, instead of 1,100,000 in 1868, the increase would be only 49 per cent., allowing a considerable reduction from the result of the preceding decennial period.

The population of Philadelphia in 1840 was 258,037; and in 1850 it was 408,762, showing an increase of 58.41 per cent. In 1860, with a population of 565,529, the increase was only 38.35 per cent. If the population was 800,000 in 1868, as given in the estimate disputed, the increase during the eight years would be 41.28 per cent., considerably higher than that of the whole of the preceding decennial period. Although this last statement, by itself considered, does not warrant entirely the estimate of the population of Philadelphia, I have no doubt the census of 1870 will justify it; at least, it will be shown that the original statement was not made without some reason.

N. A. APOLLONIO.

POISONING BY ARNICA.—A case occurring in a woman of 33 years of age, is reported in *Schmidt's Zeitschr.* She had drunk two glasses of infusion made from a large handful of the leaves. The symptoms of poisoning lasted seven days, and the patient was not quite well till the 12th. The prominent symptoms were violent vomiting, intense headache, choleric diarrhoea, with very severe gastro-intestinal colic, followed by collapse, cold extremities, and remarkable depression of the pulse. The treatment consisted principally of the use of extract of thebaine and of morphine.—*Med. Record.*

A PROLIFIC CHILD-BEARER.—Dr. A. C. White, Springfield, Tenn. (*Richmond and Louisville Med. Jour.*), publishes the case of a negress, only thirty-four years old, who has given birth to twenty-four children.—*Ibid.*

THE venerable Charles D. Meigs, M.D., one of the most distinguished medical men of the day, died suddenly June 22, at his residence in Delaware County, Pa. Dr. Meigs was a native of Georgia, but since 1820 he has resided in Philadelphia. In the year 1840 he accepted a Professorship in Jefferson Medical College, and for twenty years he labored with much success in that institution. Dr. Meigs was connected with the obstetrical department of the Pennsylvania Hospital for about ten years, and he was well known, both in the Old and New World, as a clear and forcible writer on medical subjects.—*Med. Gazette.*

NITRATE OF SILVER IN SURGERY.—Dr. J. Higginbotham, F.R.S., describes in the *Practitioner* a method of treating recent injuries, wounds, erysipelas, &c., by the thorough application of nitrate of silver. He claims that the application of the stick of caustic to the whole surface of the wound causes a dense eschar, which maintains firm pressure until healing is effected, prevents sloughing, and supersedes all other treatment, save rest.—*Med. Record.*

TRACHEOTOMY IN CROUP.—Nélaton saved his first case of croup when tracheotomy was performed, and then operated twenty-three times without a recovery. Probably he operated under all circumstances, like the majority of the French surgeons.—*Ibid.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

ERRATA AND CORRECTIONS.—In the number for June 24th, page 384, for “feciesi” read *funsti*.

In last issue, on page 401, first column, for “what we are” read *what are we*. Second column, sixth line, for “these things are” read *this is*; twelfth line, for “behind this state of things” read *in the back-ground*. Page 405, second column, line 8, period in place of comma; line 10, comma instead of semi-colon.

DEATHS IN BOSTON for the week ending July 3, 98. Males, 43—Females, 53.—Accident, 4—apoplexy, 1—inflammation of the bowels, 5—congestion of the brain, 3—disease of the brain, 2—bronchitis, 1—cancer, 5—canerum oris, 2—cholera infantum, 1—consumption, 17—debility, 3—diphtheria, 1—dropsy of the brain, 4—drowned, 1—dysentery, 2—scarlet fever, 4—disease of the heart, 3—icterus, 1—disease of the kidneys, 2—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 2—measles, 1—cerebro-spinal meningitis, 1—old age, 3—paralysis, 1—peritonitis, 1—premature birth, 3—puerperal disease, 1—pyæmia, 1—disease of the spine, 1—tumor, 2—unknown, 9—whooping cough, 3.

Under 5 years of age, 37—between 5 and 20 years, 13—between 20 and 40 years, 17—between 40 and 60 years, 19—above 60 years, 12. Born in the United States, 75—Ireland, 15—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, JULY 15, 1869.

[VOL. III.—No. 24.]

## Original Communications.

### CASE OF SYPHILITIC DISEASE OF THE BRAIN, LIVER AND KIDNEYS.

Read before the Suffolk District Medical Society by J. B. TREADWELL, M.D.

H. K., AGED 49 years 6 months; musician. Native of Germany. Came to this country sixteen years since; lived in Boston and vicinity three years, then removed to the West, where he remained four months, after which he returned to Boston, where he has since resided. He was married twenty-three years ago.

Twenty-six years since, three years previous to his marriage, he contracted syphilis, and subsequently suffered from various secondary manifestations of that disease—eruptions and sore throat—and during the early part of the present year from a large painful swelling upon the top of the head. He was under treatment for these various troubles in several hospitals abroad, and also in the Mass. General Hospital during the early part of the present year.

Two years since, he had an attack of eczema situated about the thighs and pelvis, and accompanied by severe balanitis. While at the West, thirteen years ago, he contracted intermittent fever of the tertian type, from which he has suffered at intervals ever since. He had a severe attack of this disease in April, 1868. In May he suffered from dyspepsia of a severe form, and in June he was attacked with diarrhœa, which lasted three or four months. In September he began to complain of cough, accompanied with dyspnoea and insomnia, and has suffered from these symptoms off and on ever since. Some time in November he began to have pain in the head, which continued without intermission until the time of his death, except when relieved by treatment. He had also paralysis of some of the muscles of the larynx during the early part of the present year.

During the last month he has been in a tolerably fair state of health. On Sunday evening, April 17th, he ate his supper as

usual at 6½ o'clock, but soon complained of chilliness, together with severe pain in the thorax. He became livid and had marked dyspnoea, and died before 8 o'clock the same evening.

His wife has always enjoyed pretty good health, suffering at times from slight bronchitis, pharyngitis and dyspepsia, but has presented no syphilitic symptoms. She has had three children. The first, born three years after marriage, died at the age of 7 years of scarlet fever. The next is now living, 18 years old. She next had an abortion at three months without known cause about eighteen months after the birth of the second child. The third living child is now 16 years old.

These children have never been healthy, having had cutaneous eruptions when small, the character of which it is impossible accurately to determine. They are both thin and unhealthily looking at the present time.

Section cadaveris, nineteen hours after death. Body well nourished—weight by estimate 170 pounds—very slight rigor mortis—surface slightly jaundiced—integuments of shoulders and nates discolored—face livid and congested—frothy blood issuing from mouth.

Head.—Blood flowed quite freely from incision in scalp, no trace of any external tumor having existed upon the head. Dura mater strongly adherent to calvarium over an irregularly shaped surface  $1\frac{1}{2} \times 2$  inches, along the middle third of the junction of the parietal bones, leaving a rough, torn looking surface when forced off. The bone over this space was not abnormally thickened. The portion of dura mater corresponding to this surface was thickened to an extent varying from two to five lines, being thickest at the central portion, and shading off to two lines at the border, which was distinctly defined and irregularly ovoid in form. This mass was very dense and firm, and at several points upon its cerebral surface, as well as within its substance, contained spiculæ and nodules of bone of considerable size. Beneath this thickened portion of dura mater at the right side of the falx, there was a deposit of apparently

[WHOLE No. 2159.]

recently formed lymph, covering a space of  $\frac{3}{4} \times 1\frac{1}{2}$  inches. Beneath this deposit of lymph, the pia mater was also very much thickened and very dense and firm.

The superficial vessels were very much engorged with dark fluid blood.

The cerebral substance beneath and for a short distance around the diseased portion of dura mater, was decidedly softened to the depth of an inch or more; otherwise the brain was apparently healthy.

**Thorax.**—Heart rather smaller than usual, with thin walls, but apparently healthy—all the large vessels filled with dark-colored fluid blood. Aorta healthy. Lungs crepitant throughout, but completely engorged with thin, dark-colored blood—right, adherent to diaphragm over half of its diaphragmatic surface—one small pleuritic adhesion posteriorly of lower lobe of left. As I had at the time of the autopsy no history of the case, and was very much pressed for time, the larynx was not examined, which I very much regret.

**Abdomen.**—Liver rather larger than normal, and left lateral portion abnormally lobulated. The liver and diaphragm were adherent over two-thirds of their contiguous surfaces. Upon the anterior surface of the liver were several depressed cicatricial spots 4 or 5 lines in diameter, and extending into the hepatic substance from 4 to 6 lines, the cicatricial tissue being of a dirty-grey color, and quite firm. In the superior and posterior portions of this organ were found four or five masses of abnormal growth, from one half to one and a half inches in diameter, firm in texture and of an opaque white color, irregularly spherical in form, with distinct outlines, and invested by a layer or capsule of connective tissue.

The hepatic substance was quite firm. The acini were remarkably distinct, giving the appearance of an abnormal increase of connective tissue throughout the organ.

The spleen was enlarged, measuring 9 inches in length, 6 in breadth,  $3\frac{1}{2}$  in thickness in the thickest portion, and weighing 3 pounds. The substance was of normal consistence.

The kidneys were of normal size, perhaps slightly enlarged, and the loose areolar tissue surrounding them, known as the *adipose capsule*, was very much hypertrophied and strongly adherent to the *capsula propria*, which in turn was firmly adherent to the cortical substance, leaving a rough granular surface when pulled off, and in many places tearing away portions of the renal structure. Upon section, the whole substance of the kidney was seen to

be deeply congested, but the medullary portion much more so than the cortical—the former being of a very dark color, and the conical masses very much atrophied and their outlines indistinct.

The other abdominal organs were healthy.

The abnormal growths found in the liver consist microscopically of small circular and oval cells, varying in size, with nuclei, and in some instances, nucleoli; together with some fibrous tissue and fusiform cells. These growths consist essentially of connective tissue.

In both the liver and the kidneys the general augmentation of connective tissue was very marked, the increase of that structure investing the kidneys being carried to a remarkable extent.

The following are among the best authorities upon the pathology of these syphilitic deposits in the liver:—

“Virchow describes a ‘*peri-hepatic*’ lesion and a *simple gummy interstitial hepatitis*. The former never occurs alone, but is generally associated with the latter,” as in the present case. “The hepatic substance atrophies, and the deposit contracting is eventually absorbed, causing a cicatrix like mark.” —(Aitken’s Pract. of Med.)

Wedl, in speaking of these “*cicatriform contractions*,” says, “these parts are occasionally found in a state of involution, containing an abundance of minute fat globules and pigment molecules, and, when torn asunder, also presenting shrivelled nuclei.” \* \* \*

“The callous streaks, penetrating the substance of the liver, of a lightish-grey color, consist of wavy fibrils occasionally crossing each other, which, when treated with acetic acid, exhibit elongated imbedded nuclei placed at regular distances apart. Besides this, groups of pigment molecules are very frequently seen, no longer contained in a cell, whilst in many other situations they are still microscopically enclosed in a tunic.”

Of abnormal growths in the liver similar to those in the present case, the same author says:—

“The softer portions of the new-formation contained principally cells, of the most diverse forms, furnished with one or two nuclei, of an oval form, with nucleoli.” \* \* \*

“The fusiform cells, of the most various widths, are occasionally arranged in obliquely ascending parallel rows. The more consistent portions are constituted chiefly of fibrous bundles. The rest of the hepatic substance exhibits no striking anomalous condition.”



"The most remarkable distinction between the granular liver, and that affected as above in cases of syphilis, consists mainly in the circumstance that in the former the new-formation appears in a diffuse, and, in the latter, in a more concrete form; that is to say, is more limited to isolated portions of the hepatic parenchyma. The process followed in the development of the new-formation is, of course, the same in both. But whether syphilis alone can produce this concrete form may, perhaps, admit of considerable doubt."

Mr. Barton, of Dublin, one of the latest authorities on syphilis, treating of specific hepatic disease, writes as follows:—"Syphilitic lymph is found deposited in the liver in two ways. 1st, *diffused*, that is, shed upon the surface and through the areolar tissue, forming the capsule of Glisson. This is the *interstitial syphilitic hepatitis*, or *syphilitic cirrhosis*, of different authors; it is comparatively rare, but no doubt of its syphilitic origin, in many cases, can be entertained. The appearances presented by a liver thus affected are as follows:—The surface is furrowed by depressions or grooves, caused by the contraction of the fibro-plastic material which has been effused; these furrows, extending in different directions, give a puckered look to the surface, which, between the furrows, is forced out into rounded lobules; not unfrequently adhesions exist between the diaphragm and upper surface of the organ. When a section is made, we see the fibrous bands extending from the furrows on the surface into the substance of the organ, enclosing between them islands of healthy gland tissue, thus giving a lobulated appearance to the liver. This form of syphilitic disease of the liver has many features in common with alcoholic cirrhosis, from which it differs, however, in appearance, very much; for in cirrhosis from whiskey the whole gland is small, hard, and contracted, the surface presenting the characteristic hob-nailed appearance, being formed of numerous small prominences of equal size, the contracting lymph being apparently shed equally through the capsule of the organ. In syphilitic cirrhosis there is irregular contraction, and consequently large lobules projecting between deep furrows." \* \* \*

"In the second form the deposit appears as a circumscribed tumor, or fibrous mass, and has been called *gummy tumor of the liver*, or *circumscribed syphiloma*, and *encysted knotted tumor of the liver*. The term gummy is objectionable, for it is the name given to the softer deposit laid down in the

later period; whereas this circumscribed tumor of the liver is usually hard and fibrous, very rarely showing any tendency to soften in the centre, and is found to exist long before the latest stage is reached. The circumscribed appears frequently to be a more advanced stage of the diffused form of deposit, which, as time advances, becomes contracted into more distinct masses than would be found if examined earlier. The circumscribed is much more frequently met with than the diffused, which, supposing it to be the advanced condition of the later, would be the case, for death in these cases does not usually take place for many years after the disease in the liver has existed." \* \* \* The appearances noticed in the present case would seem to support this view, both of the above-mentioned forms of disease being present, and the *concrete* being apparently of much more recent date than the *diffuse*.

Mr. Barton continues:—"Dr. Wilks seems to me fully warranted in the remark which he makes in connection with these cases, that these fibroid deposits do not belong to the latest stage of syphilis, when the patient has passed into a state of cachexia." \* \* \* These tumors rarely, if ever, soften and suppurate; although a case in which pus is said to have been found in the centre of a voluminous tumor of the kind, is reported by Dittrich. They appear to be not unfrequently absorbed, leaving behind them depressed cicatrices; and they have been found frequently undergoing a fatty degeneration. \* \* \* In regard to the morbid changes occurring in the kidneys in this class of cases, the same author says—"Albuminuria has very frequently been observed in the syphilitic, but how far this was produced by syphilitic disease of the kidney, or by the occurrence of ordinary Bright's disease, was in most cases very doubtful. There can be no doubt, however, that the kidneys are occasionally the seat of syphilitic inflammation and deposit, besides frequently presenting the lardaceous degeneration, which may be considered rather as one of the sequelae. Two forms, the *diffuse*, or interstitial, and the *circumscribed*, are met with. In the former, syphilitic lymph is shed through the gland and over its surface, so as to produce a cirrhosis, resembling that produced by whiskey." \* \* \*

The cortical and tubular portions of the kidneys are alike pressed upon by the effused lymph, and both the corpuscles and pyramids of Malpighi become atrophied. This disease must be admitted as a syphili-

tic form of Bright's disease, which it is important to distinguish, especially from the cirrhosis produced by alcohol, which it resembles; in the latter, the atrophy is more general than in the former, the syphilitic disease producing also depressions and cicatrices on the surface of the kidney."

\* \* \* Virchow, in his monograph on constitutional syphilis, gives several cases similar to the above, in which syphilitic disease of the liver was observed with Bright's disease of the kidneys and diarrhoea, although his cases, unlike the one above reported, presented pathological intestinal appearances. How much the alcohol which this man had consumed freely for many years had to do in promoting these pathological changes may be a question, but that the nature of the changes was essentially syphilitic and not alcoholic, is sufficiently clear from the special character of the morbid products. One of the most constant appearances found inside the cranium, says Mr. Barton, is thickening and adhesion of the dura mater to the base sometimes, and more frequently to the surface of the brain, the two surfaces of the arachnoid being firmly glued together at the part affected.\* \* \* "The dura mater and arachnoid are always more or less affected, although deposits unconnected with them are sometimes found in the substance of the cerebrum, cerebellum, or medulla oblongata; yet the preference shown by the diseased action for the membranes is remarkable. They illustrate, also, the fact that disease of the bone may accompany, and probably precede and cause, the disease in the contents of the skull; but that this connection is by no means necessary, or even at all usual, is amply proved. It is important particularly to note the character of the exudation found gluing the membranes together, or deposited as separate masses in the brain substance. It is always described as firm, solid, hard, or elastic, generally of yellowish-white or greenish color—sometimes soft in the centre, sometimes hard throughout; but seldom or ever do we meet with any mention of general softening, or anything like sloughing or suppuration; in fact, as a general rule, it differs in no respect from the hard, contractile syphilitic lymph characteristic of the first division of the tertiary stage."

Again, in treating of the late manifestations of the tertiary stage, he says:—"Syphilitic disease of the bones sometimes extends to the contents of the cranium, and produces inflammation of the dura mater and syphilitic deposit between it and the

brain, and thus gives rise to the symptoms already described as arising from disease originally commencing in the brain or its membranes." \* \* \*

Virchow says that softening of the cerebral substance in the immediate vicinity of these deposits is not unrequent.

Whether or not in this case the disease in the dura mater was the result of an inflammatory process, commencing in the investing membranes of the bone at that joint, and perhaps having initial manifestation in the external tumor which was developed some months previous to death, it is, perhaps, impossible to state definitely. The microscopical appearances of the morbid mass in the dura mater were identical with those of the growths found in the liver.

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#### SOME ACCOUNT OF JOHN GILLEY, WHO DIED IN AUGUSTA, ME., AT THE AGE OF 124 YEARS.

By R. D.

If you think that your readers would like to know something about this very old man, you can give the following notice of him a place in your JOURNAL.

The late Prof. R. D. Mussey visited him when he was 118 years old, and some years before his own death gave me some facts in regard to him, of which I made a note at the time, and which were essentially as follows:

He was an Irishman by birth, and had lived for many years in Augusta. His figure was small and erect; and he could not have weighed over 100 lbs. Intellect quite *mediocre*. His diet consisted of animal and vegetable food, in about the usual proportion; and he still retained seven of his teeth. His habits were and had been generally temperate in the use of liquor, and he did not habitually indulge in tobacco. Once he fractured his leg, but he had never been confined by a fit of sickness. It was upon a cold day in winter when Prof. M. called to see him, and he found him in his barn, taking care of his cattle. He had already cut all of his wood for the winter. When he was between 70 and 80 years of age he was married for the first time, and he took for his wife an Irish girl only 18 years old. By her he had eight children, all of whom had left him, though his wife was still living, and at the age of 60 years. Prof. M. had been informed that after the death of the old man she had said that his virility left him, and suddenly, when he was 120 years old.

In the Transactions of the American Academy for 1833, the late Dr. J. E. Worcester published an article on longevity, and in it is a short notice of Gilley and of many other very old persons. It is there stated that he was born in Ireland in 1690, came to this country about 1750, lived on the Kennebec river nearly fifty years, and died July 9, 1813.

His weight was generally 112 to 116 lbs.; and when in his best condition, 124. An illiterate man, but of cheerful disposition; accustomed to hard labor and coarse fare; and retained considerable strength and activity until a short time before his death. Habits not remarkably temperate, nor yet intemperate.

#### EXHAUSTIVE UTERINE HÆMORRHAGE.

By J. W. TRADER, M.D., Sedalia, Mo.

I WAS called to a case of exhaustive uterine hæmorrhage of twenty days duration.

The woman was about 25 years old, of a thin, bilious temperament—married, and has borne children, and with the exception of a miscarriage four or five years ago, has never been irregular. The present hæmorrhage came on after a laborious day's cleaning, hanging window curtains, &c. I prescribed the usual constitutional remedies—first, gallic acid and opii, but finding little benefit therefrom, I made a digital examination, and found *proidentia uteri*, with the os dilated and patulous. I now used the cotton packing, cold water and laudanum injections into the rectum and cold cloths applied to the vulva, with plumbi acetas and opii internally.

After three days the uterus was in its normal position, but the os was still dilated and bleeding. Believing, with Dr. Sims, that "where there is an inveterate menorrhagia, there will always be some abnormal cause for it," I made an examination with the speculum, and found extensive granular erosion of the os and cervix, with blood flowing in a small continuous stream. After wiping away the clots with moist cotton, fastened on the end of a small pine stick, I could see the blood issue from the granulated surface like the sweat from the pores of the skin, and, as fast as it was wiped away, it collected and flowed again. By dipping the cotton into warm water and freely bathing the os uteri, the hæmorrhage seemed to increase. Acting upon the hypothesis that, "if the nose bleeds, we try to stop it by the most direct methods in our power; if the hæmorrhoidal vessels bleed persistently, we attack them with the

*éraseur*, ligatures, nitric acid, persulphate or perchloride of iron," I could see no reason why I should not stop this abnormal flow by some direct application. So I took the caustic and gently touched the eroded surface, and then, after dipping a female catheter into some warm water and thrusting it down into a bottle of Mousel's salts of persulphate of iron, completely covered the os, and passing the catheter some half inch into cervix uteri lined that cavity with the styptic. The hæmorrhage ceased immediately. After waiting a few seconds I again took the cotton, and, wetting it in a bowl of warm water, washed off the redundant salt. Some few spots commenced to bleed again. I repeated the persulphate, washing it off as before, but without any hæmorrhage following. I now took a small piece of dry cotton, and after tying a string around it saturated it with glycerine and placed it immediately over the os, retaining it *in situ* until the speculum was removed. As my patient had by this time become quite feeble from loss of blood, with a decided icteric appearance, I ordered drachm doses of Tilden's elixir of bark and iron every four hours, with nutritious diet, and instructed her to remove the cotton, by gentle tension on the string, purposely left hanging from the vagina, in about six hours.

After a comparatively comfortable night's rest I found her considerably revived and hopeful, but with a slight hæmorrhage still. I again introduced the speculum and found the cervix completely plugged up with a tenacious bloody mucus. This I removed, and sponged the vagina and os uteri with warm water as before, noticing but a slight oozing of blood. The persulphate was again applied, and likewise, after a moment's delay, was washed off without any appearance of hæmorrhage following. The speculum was removed and no further applications made.

The woman made a rapid recovery, and thanked me with substantial and feeling gratitude for staying the "terrible bleeding."

#### UTERINE DISPLACEMENT.

By HENRY REYNOLDS, M.D., Auburn, Me.

Mrs. B. R. B., of Auburn, Me., aged 34 years, has been married nine years. Eleven years since, after a long walk, was seized with pain in the back and bowels, accompanied with great discomfort in walking. This lasted but a day or two, but recurred, at times, afterwards, and she also began to

experience pain at menstrual periods. Since then dysmenorrhœa has continued, health has been delicate, and she is much emaciated. During a year past has had palpitation of the heart and dyspnoea on slight exertion. The palpitation annoys her much on lying down at night, and keeps her awake. Is troubled with trembling, most marked in her hands. She experiences difficulty in rising from a sitting posture and in ascending stairs.

In the spring of 1868, first noticed an enlargement of the thyroid gland. Her attention was first directed to it by her dress-maker. The gland continued to enlarge through the summer and autumn, and in November it presented an enlargement quite noticeable at a distance. Apparently it was three-quarters of an inch in thickness, lying over the trachea and extending an inch and a half to each side. There is unnatural prominence of the eyes and inordinate action of the heart.

In July, of 1868, she noticed a small tumor of the size of a coffee bean, near the insertion of the pectoralis major muscle upon the fourth rib to the left of the left nipple. Her medical adviser, to whom she showed it, expressed some fears lest it might prove to be of a cancerous nature.

In November, she consulted me, and since she had symptoms of uterine displacement, I thought it probable that the uterine disease might stand in a causative relation to the enlargement of the thyroid gland, and of the lymphatic gland which had been suspected of having a "malignant" tendency.

Upon examination, the uterus was found prolapsed and enlarged, pressing upon the rectum. Inserted one of Hodge's closed double lever pessaries. She wore the pessary without trouble and derived much comfort from it.

March 14th, 1869. Patient much better of the palpitation of heart and shortness of breath. Palpitation does not keep her awake at night, and only troubles her on unusual exertion. General health much better. The bronchocele and enlarged lymphatic gland of the breast have diminished in size.

April 23d. She has gained in flesh and strength. Can now walk three miles with greater ease than she could walk forty rods before treatment. All her symptoms are improving. The bronchocele has nearly disappeared, and the unnatural prominence of the eyes is not noticeable.

June 1st. Patient continues to wear the pessary. The bronchocele is not percepti-

ble. Her health has very much improved during the treatment. There is yet some enlargement of the uterus, which will necessitate the use of the pessary for some time yet to perfect the cure.

This case has seemed to me of peculiar interest, on account of the bronchocele, unnatural prominence of the eyes, and disturbance of the heart's action, apparently due to uterine irritation, and the significant disappearance of these serious affections in other parts of the system, under treatment addressed to the uterine disease.

#### CASE OF REMARKABLE RECOVERY FROM A SEVERE INJURY OF THE HEAD.

By H. F. WARDWELL, M.D., Gorham, N. H.

Noticing in a former number of your Journal an account of an "Extraordinary Recovery" from injury to the head, leads me to communicate a few facts in relation to a very similar case.

I was summoned by telegraph March 1st, 1869, to Berlin, N. H., to attend Chester Bean, who had been injured by going under a large circular saw in Wheeler's steam mill, in the above named town. The call came at about 7, P.M.; the patient was ten miles away, and the roads were very bad. I arrived late in the evening; found the patient perfectly conscious, lively and comfortable, and, before removing the dressing which had been applied, concluded the family had been frightened at a simple scalp wound. The symptoms all being favorable, I very deliberately warmed myself, took some supper, and then proceeded to examine the wound. I found, to my astonishment, that it extended from the supra-orbital ridge of the left side nearly back to the occipital bone, terminating in the right parietal bone about an inch from the sagittal suture. The wound measured eight inches, though the head was a small one, and the outer plate of the skull was sawn through the whole length. A strip of the skull was removed, at least, five inches, beginning just above the superciliary ridge, and extending back into the parietal bone. There was but little hæmorrhage, though the pulsation of the arteries inside of the head could be plainly seen. How far the brain was wounded I am unable to say, as the wound was dressed at night, under unfavorable circumstances, and any pressure into the opening caused great distress. I am sure, however, that I introduced my fore finger into the wound at the upper part of the frontal bone, about two inches.

Taking into consideration the convexity of the skull and also of the saw, it would seem that the brain was cut nearly through; but then the head came in contact with the saw in such a manner that the tendency was to draw the parts from the brain rather than to press upon it, and it seems likely that it rotated somewhat, as it is hardly probable that the saw penetrated to the depth indicated by the external wound. I had little or no faith in the recovery of the patient, and was not as particular to ascertain the facts in the case as I otherwise should have been. The bones of the cranium were not loosened, though the saw scarf (to use a mill term) was about three quarters of an inch wide. The depression over the frontal bone is still plainly felt.

The wound was carefully washed out, the head shaved and the scalp brought together with adhesive plaster. Though the soft parts were badly mangled, there was but little loss of material. Cold water dressing was applied, and the wound healed rapidly. The patient slept well every night, had a good appetite, and suffered very little pain. In fact, I have never, in sixteen years' practice, seen so little general disturbance caused by so severe a wound in any other part of the system. The patient was removed to his home, about five miles, in two weeks after his injury, in four weeks the wound was healed, and he is now well. At my first visit he laughingly said that he was "afraid he had spoiled his beauty," but there is very little deformity.

If any one doubts the above facts, I will satisfy him if he will come to Gorham.

May 10, 1869.

#### NIEMEYER ON THE RELATION OF ILEMOPTYSIS TO PHTHISIS.

Translated by HENRY TUCK, M.D., Boston.

F. NIEMEYER, in a recent article in the *Berlin Klin. Wochenschr.* (Nos. 17 and 18, 1869), entitled "Some Remarks upon the Relation existing between Hæmoptysis and Phthisis," makes the following statements, as embodying the result of his study and experience.

1. Most, though not all, patients, who suffer from capillary, bronchial or parenchymatous hæmorrhage of the lungs, are either already phthisical or become so later.

2. Capillary, bronchial or parenchymatous hæmorrhages are not unfrequently followed by phthisis, where no direct connection exists between the hæmorrhage and the pneumonic processes, which, as a rule,

are the origin of phthisis. Patients who are predisposed to such hæmorrhages, are also predisposed to these inflammatory processes.

3. Capillary, bronchial and parenchymatous hæmorrhages are not unfrequently, in patients in whose lungs neither tubercles nor the remains of an old pneumonia are present, the origin of phthisis, and in this way, that the blood poured into the alveoli of the lungs and remaining there, with the products of the inflammation set up by this effused blood, undergoes caseous degeneration.

4. In the same way, bronchial and parenchymatous hæmorrhages often hasten the course of an already existing case of phthisis.

5. In some exceptional cases the hæmoptysis is not the origin but the result of pneumonic changes, which, in their further development, lead to phthisis. Such cases are easily recognized, as violent fever or other inflammatory symptoms usually accompany or precede such attacks of hæmoptysis.

6. The blood remaining effused in the alveoli of the lungs and the products of an old pneumonia, which have undergone caseous degeneration, are often the exciting cause of the development of miliary tubercle.

#### PERFORATING GASTRIC ULCER.

By SAM'L P. FRENCH, M.D., Warwick, Mass.

THE subject of this sketch was a resident of Warwick, 61 years old, married, a farmer, tall and slim, with light hair and blue eyes.

He has complained of his stomach the past fifteen years, and has not been able to do any manual labor for more than a year. From the first of last December, when I first saw him, till the first of May, when he died, he had been confined to his house, and most of the time to his bed. He was extremely emaciated, cachectic and anæmic, his countenance indicating great suffering. He referred all his suffering to a small spot above and to the right of the umbilicus. On examination (which was very painful) there was found an extremely tender spot on the lower margin of the liver; for he was so emaciated that most of the abdominal organs could be felt through the parietes.

When he walked he bent his head and shoulders forward and to the right, to relax the muscles on his right side.

He was constantly spitting saliva and mucus. No cough—no pain in the chest after eating or exercise; had a severe and

distressing pain in the above-named spot; in his own words, "a pain that made him sick and faint, and took away his strength." When his stomach was empty he was quite free from pain, and generally rested well nights. Frequent sour eructations; heartburn; vomiting more or less; relief for a while after vomiting; could not lie on his right side; bowels constipated; no tympanites; pain in his right shoulder. The 12th of March he vomited more than a quart of dark-colored blood, became much exhausted, radial pulse imperceptible, deadly pallor, eyes glassy; appeared to be in "*faucibus mortis*," but by the aid of stimulants he rallied. From this time to his death (seven weeks) all of his symptoms were aggravated, and he lost what little appetite he had before.

He became delirious a few days before death. Breath very fetid.

The medicines that gave him the most relief were whiskey, morphine, bismuth and chloric ether. His bowels were moved once a week by injections.

Diagnosis:—The symptoms, namely, spitting, pain aggravated by eating and exercise, the frequent vomiting, the profuse hæmorrhage and the long continuance of the disease, indicate plainly the perforating gastric ulcer.

The tender spot in the liver, the pain in the right shoulder, the inability to lie on his right side, indicate inflammation of the liver. But I know of no symptoms by which I could have diagnosed that this inflammation had terminated in gangrene, as the sequel will show. The perforation probably took place near the time of the hæmorrhage, for so large a quantity of blood must have come from some large arterial branch on the outside, or in the peritoneal coat of the stomach.

Autopsy:—The countenance was more natural than when alive. The first thing that struck my attention on opening the abdomen was the dark appearance of the lower part of the left hepatic lobe, except at the very tip. The edges of the affected part adhered to the pylorus and duodenum. I broke with my finger the adhesions, and raised the lobe. It disclosed a ragged hole about one half inch in diameter at the pyloric extremity of the stomach. That portion of the liver around and over the perforation, was dark brown, gangrenous, rotten and fetid—a black pulp. This gangrene extended through the lobe. The surrounding tissue of the lobe was inflamed, and contained a little pus.

The gangrene extended to within two lines of the lower margin of the lobe.

Rokitansky (Path. Anat., Vol. ii. p. 110) says: "Gangrene of the liver is very rare, in fact Ferrers and Bérard deny its occurrence, but we have seen it in one well-marked case, associated with pulmonary gangrene. The liver was slightly enlarged, and presented, very distinctly, the nut-meg appearance. The stomach was contracted and contained a small quantity of dark-colored fluid, that, with slight pressure on the stomach, ran out of the perforation. I removed, opened and washed the stomach. At its pyloric extremity, extending into the duodenum, was a large round ulcer, two inches in diameter, of a grayish color, and nodulated, the walls growing thinner from the circumference to the centre, where the perforation was located. At a short distance from the ulcer, on the lesser curvature, were three small, irregular ulcers, the mucous membrane only being destroyed. In the cardiac portion, the mucous membrane had a striated appearance, i. e. parallel striae, or lines of scarlet and white. He had been, from his youth up, very intemperate. Intemperance is the greatest cause, in my opinion, of ulceration of the stomach. I have had four cases of this species of ulcer, and three of them occurred in habitual spirit-drinkers."

Mr. Brinton says, in his admirable treatise on gastric ulcer (Med. Chirurg. Rev. Vol. 18, p. 137): "Old age, privation, fatigue, mental anxiety and intemperance are such frequent coincidents of its occurrence that we are fully entitled to regard them as its more or less immediate causes in a large proportion (I think we might say a majority) of cases."

#### A PLEA AGAINST THE INDISCRIMINATE EXHIBITION OF ACID MEDICINES.

By A. P. STEVENS, D.D.S., Portsmouth, N.H.

I wish to speak of the internal exhibition of acid medicines, and in particular, of zinc, muriate of iron, and nitric, sulphuric and hydrocyanic (hydrochloric?) acids.

Fully recognizing the value of the different preparations of iron in their power to quicken the languid circulation and impart tone and vigor to the debilitated system, I feel impelled, by a sense of duty, to raise my voice against the indiscriminate manner in which the acid preparations are employed by many physicians, apparently with an utter disregard—it cannot be ignorance—of

their action upon the masticatory organs. Many times during the past few years of my practice I have had incontestable and painful evidence of the ravages caused by the protracted use of various acid medicines and the unprotected preparations of iron upon teeth, which previously gave evidence of strength and unusual powers of resistance, but which now are ruined for beauty and usefulness. In several cases of young patients suffering from chlorosis or a cachectic habit, I have known the above-mentioned medicines to be administered for weeks and months without any caution or corrective being suggested. In each case the medicine has left its burning traces behind, and has given an impress to the naturally delicate organs which has either resulted in wholesale ruin, or in so great an injury as to require the utmost care, both professionally and personally, to atone, even in a measure, for the evil.

I would not have it understood by this article that I belong to that class of dental practitioners who are ever ready to teach their patients that all the ills they have to deal with are brought on by "taking cold," or are directly attributable to the action of drugs and medicine. On the contrary, it is often my privilege to remove such impressions, by pointing out plainly that defective teeth are mainly dependent upon the very conditions requiring the employment of medicine. Let any school or class of practitioners—no matter which—be the means of driving disease from the body, and the dentist's occupation will be well nigh gone. But surely it does not require the research of a Davy to demonstrate the affinity between the acids I have mentioned and the lime of the teeth, nor an extended practice to make one positive that in these acids, when carelessly used, the human teeth have a subtle and deadly enemy.

I do not expect by my protest to induce physicians to discard the list of acids from their *materia medica*. Nothing of the kind is intended. Neither do I expect to add to the knowledge of any; but I would most respectfully urge the prior claim of pure air and plentiful exercise, together with a careful and persistently followed dietetic regimen, in the treatment of the bloodless languid creatures (usually school girls) who give such unmistakable evidence of the hot-house culture they have been subjected to. If iron be needed, let us employ such protected preparations as can leave no sting after them.

And if, in the treatment of intermittent fevers, pneumonia, whooping cough, phthi-

sis, cancer or scorbutic diseases, nitric, sulphuric or hydrocyanic (?) acid is indicated, let the remedy be exhibited with such care, and with such explicit directions for its immediate *neutralization* in the mouth as not to add to the ravages ill health, ignorance and carelessness are daily making among those beautiful and invaluable organs, the human teeth.

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## Bibliographical Notices.

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*Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales (An Annual Dictionary of Medical Sciences and Institutions)*. By P. GARNIER, M.D., &c. &c. (Fifth Year, 1868.) One vol., 12 mo., pp. 528. G. Baillière, Paris: January, 1869.

This Dictionary, says one of the oldest French Medical Journals, is now acknowledged as indispensable to every medical library. Its form is excellent, and the alphabetical order of subjects, and their condensation, answer admirably the needs of the busy practitioner, who has little time to devote to long dissertations.

To give an idea of the work, we will cite a few sections—taken almost at random:—

*Fibromes*.—An interesting discussion on two cases of disappearance of fibrous tumors of uterus reported to the London Obstetrical Society. The theory of the absorption of these tumors was unanimously condemned by the entire society. No process of medication can produce absorption of fibromas. An error in diagnosis can only account for such disappearance. Pelvic cellulitis has often given rise to the mistake, the tumors softening and being discharged into the rectum. A retro-uterine hæmatocele may be mistaken for an interstitial fibrous tumor.

In another instance, a tumor of the anterior wall seemed to disappear when the expulsion of a polypus discovered the error.

*Fractures*.—Semeiological value of the condition of the nails in fractures. Professor Broca noticed in a case of fracture of tibia that the nails on the foot of the fractured leg did not grow during the process of union, while those of the other foot maintained their proper growth.

In a case of fracture of the left fore-arm, happening October 7th, M. Duplay noted November 19th that the nails of the left hand had ceased to grow since the occurrence of the accident, and were of a black-

ish-yellow color. From various complications, little progress towards union had taken place up to November 19th. Soon a rose-colored crescent appeared at the bases of the nails. The new nails, and the consolidation of the fracture continued to advance favorably till Jan. 10th, when the ulna was completely united. At this time the process of union of the radius was arrested, and remained stationary fifteen days. The nails, also, were arrested in their growth during this period, but when the consolidation re-commenced there was a parallel increment in the nails.

*Luxations.*—Dr. Thierfelder has had recourse to the subcutaneous injection of morphia, in place of anesthesia, to overcome muscular resistance in dislocations. He found muscular relaxation was produced very rapidly, and two dislocations of the shoulder, one of the elbow and one of the knee, have been reduced without ill consequences to the patients.

Various other valuable suggestions on the different luxations occur in this article.

Page 253.—In 51 cases of mania, ophthalmoscopic observations gave well-marked symptomatic alterations in 25. In 13 they were doubtful, and in 13 none were discovered.

Often the alterations were symptomatic of co-existing meningitis.

It was found that during maniacal paroxysms there was a spasmodic contraction of the bloodvessels of the disk, followed by well-marked paralysis of the vessels and hyperæmia of the disk. The permanent changes are stasis of the blood and consequent atrophy of the disk.

*Position.*—Value of position of a limb, as a means of increasing or retarding circulation. In case of the upper extremity, a rotation of the limb outwards, in addition to elevation, is of great advantage.

Dissection of the axilla has shown that by the rotation, the axillary artery is compressed between the heads of the median nerve, &c. &c.

Page 421.—*Santonine.*—Prof. Giovanni concludes that the yellow color which the eye perceives in objects when santonine has been taken, does not depend on any elective action which the article has upon the optic nerve, but upon the yellow color which, when exposed to the air, it takes to itself.

Page 416.—Slaked lime in tetanus.

*Urine.*—"Upon the relation which exists in the physiological state, between cerebral activity and the composition of the urine."

The conclusion of Dr. Byasson's experiments is, that cerebral activity is accompa-

nied by the more abundant production and the simultaneous appearance in the urine of urea, of the phosphates and sulphates of the alkalies; while muscular activity increases the urea, uric acid and chloride of sodium. These results are so constant and evident, that by a single analysis it is possible to tell, whether there has been muscular or cerebral activity.

In this article, various theories are presented and discussed in an instructive manner by the author.

American contributions to professional science are not overlooked in the Dictionary. Dr. H. J. Pratt's "*thèse remarquable*" on *Thien* is noticed, and its conclusions given. Dr. Borland's "*rapport intéressant*" on pneumonia in the Boston City Hospital is briefly analyzed, and the treatment properly presented. Other instances might be given—but every practitioner should have a copy of the Dictionary within reach, for the valuable assistance to be obtained from it, in reviewing the progress made during the previous year in the various departments of medicine and surgery. \* \* \*

#### *Syphilis and Local Contagious Disorders.*

By BERKELEY HILL, M.B. Lond., F.R.C.S., Asst. Surgeon to University College Hospital; Teacher of the Use of Surgical Apparatus in University College, and Surgeon to Out-patients at the Lock Hospital. Philadelphia: Henry C. Lea. 1869. 8vo. Pp. 467.

The book is a systematic description of Venereal Disease, very complete and fully brought up to the times; although, as the author remarks, it has been "kept concise and suitable for the student as well as the practitioner."

To the student, it will commend itself by its clearness of statement, its methodical distribution, its completeness, and (no small virtue) its freedom from multiplied details. The practitioner cannot fail to observe in the descriptions, and the directions for treatment, evidence of the author's practical acquaintance with the subject.

Here and there we meet with a characteristic caution, which declines to receive a theory upon any less than complete evidence.

The literature of venereal is very well represented in quotations from German and French, as well as English authors. Morbid processes are thoroughly and clearly described in their histological aspect, in accordance with modern views, and with a natural leaning towards German authority.



This portion of the work deserves especial attention. We have no doubt that the conspectus of modern advances in syphilography, here presented by Mr. Hill, will be welcomed by very many of our readers.

A very useful feature, for the introduction of which he will have the student's thanks, is a summary of the contents of each chapter, placed at its close.

That the book does not contain everything that ever was written or said or done, is a matter for thankfulness. Admirable as it is, it might have been spoiled by the very easy process of making it twice as long. The whole book is an honor alike to the author, and to the publisher, who has given us so handsome an American reprint of the English edition.

D. F. L.

### *Secondary Degenerations of the Spinal Cord.*

By CH. BOUCHARD. Translated from the French by Edward R. Hun, M.D., Roberts, Utica, N. Y., 1869. Pamphlet. Pp. 104.

After the analysis of many old and new cases, with their respective autopsies, and an interesting résumé of the subject from the year 1700, the author concludes "that a cure is possible even when the columns of the cord seem to have undergone secondary degeneration, and that the nerve tubes of the cord may be regenerated like those of the peripheral nerves, not only in the child but also in the adult, and even when the degenerated fasciculi have already been the seat of a hypergenesis of nuclear elements."

H. H. A. B.

## Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 15, 1869.

### NOTES FROM THE FOREIGN JOURNALS.

THE following case occurred in the clinical ward of Dr. Namias, of Venice. The report of it, which we translate, was made by Dr. Pietro, of that city, in the *Giornale Veneto di Scienze Mediche* for February and March, 1869.

*Albuminuria—hypertrophy of the spleen—anasarca. Treatment evacuant. Notable amelioration.*—Giacome Crovato, Venetian, 16 years old, gardener, of good constitution, lymphatic temperament; entered the hospital August 11, and was discharged the

6th of October, 1864. The year previous, he was treated in the same ward for œdema of the lower limbs. He had had, for a few days previous to entrance, a fever which began and ended violently with a chill every other day.

At the clinic, the following symptoms were noted. Face pale and swollen; abdomen tumid from ascites; œdema of the legs, which pitted on pressure; urine scanty, neutral, and containing a notable quantity of albumen; pulse frequent; slight cough; respiration oppressed; sibilant rónchi at the lower part of the lungs; digestive functions normal. Dulness of percussion at splenic region, more extensive than usual.

He was treated with drastics and diuretics, and with flying blisters and frictions on the abdomen. After the administration of these remedies, the tumefaction diminished by degrees; the respiration was more free and the urine became less albuminous.

On the 7th of September, the treatment was modified. The patient got a solution of protiodide of iron, and also, pills of squills and cicuta.

On the 13th, the œdema had disappeared. Then, together with the ferruginous solution, he took pills of nux vomica, and subsequently, balsam of copaiva in addition.

On the 22d, there remained slight dyspnoea, which, however, was not constant; and the urine contained a small proportion of albumen. All the other functions were normally performed. From the 23d of September to the 4th of October, nothing worthy of mention occurred. On the 5th, he was discharged at his own request.

The dropsy with which the patient was affected, Dr. Pietro goes on to remark, depended undoubtedly on the altered quality of the albuminous blood, in consequence of which, there was a constant expulsion of a notable quantity of albumen. Hence, the albuminous urine. Since, also, there was an augmented quantity of water in the blood, the serous effusions are easily explained.

But, was the albuminuria idiopathic, or secondary to something else? In other words, did it originate in a peculiar modification of the albumen, which change, ena-

bled that substance to filter freely through the kidneys, or were the kidneys diseased in such a way as to promote its discharge? The reply to this question is always difficult; and since we are ignorant of the real nature of the molecular changes of the albumen (the existence of which changes is not admitted by all); and since the simple passage of the albumen through the kidneys produces in the long run, structural lesions; for these reasons, we remain in great uncertainty. We have, however, in the present case, many considerations leading to the admission of a renal lesion; such as the absence of any constitutional disorder, capable of producing great disturbance of the assimilative functions; the duration of the malady; the marked quantity of albumen constantly in the urine; the scantiness of that fluid; and the succeeding dropsy. But, on the other hand, it is very probable that the renal lesion was not very extensive or profound, as otherwise so great an amelioration would have been with great difficulty obtained. Probably the albuminuria was produced by a chronic catarrh of the tubuli uriniferi, with desquamation of epithelium—a disease not absolutely incurable. In fact, experience has demonstrated, that even confirmed albuminuria is not always fatal, but that in many instances it admits of gradual amelioration or even complete recovery—leaving entirely out of view, the cases of transitory albuminuria, the prognosis in which, is in direct relation with the proximate morbid cause.

As to the bronchitis and the splenic hypertrophy with which the patient was affected, Dr. Pietro thinks those lesions had no connection with the disease of the kidneys, and are to be considered as merely accidentally coincident phenomena.

We translate the following from *L'Union Medicale*.

Surgical clinic of Strasburg. Sprain (*entorse*) of the knee, with Diastasis of the Internal Condyles of the Tibia and Femur—treated by flexion at a right angle.

Two patients presented themselves at a short interval of time from each other at the clinic, who were both victims of a kind of injury which had spent its force on the outside of the knee, causing an outward deviation

of the leg—that is, a “*valgus*” of the knee. But, in the first, there existed a rupture of the internal lateral ligament; in the second, a fracture of the external condyle of the tibia. M. Bœckel calls attention to these two lesions as quite rare, and not hitherto described in connection with clinical facts; and also, to the particular mode of treatment applied to the sprain of the knee. The first case was that of a laboring man, 70 years old, still robust, who was brought to the hospital, Nov. 16, 1868. In lifting a stone, he lost his hold, and let the weight fall on the upper and outer part of the left leg. He was thrown to the ground, and could not get up. On examination, there was found considerable tumefaction of the whole leg, especially at its upper portion, immediately below the knee, where there was an abrasion of the skin produced by the stone. The capsule of the joint was distended by a liquid effusion. The pressure of the fingers on the head of the peroneus was very painful, and wrung screams from the patient, while at the same time, it gave a perception of manifest crepitation, and of slight abnormal mobility. There was evidently rupture of the neck of the peroneus. There was another painful point at the internal tuberosity of the tibia, at the level of the lower insertion of the internal lateral ligament. \* \* \* When the external swelling had disappeared, it was perceived that the left knee projected more inward than did the right; in other terms, the axis of the leg deviated outwards, and formed, with the thigh, an obtuse angle, the apex of which was directed inwards; in one word, there was a *valgus* knee. The patient declared that before the accident, the lower limbs were equally straight. On fixing the thigh, and carrying the left leg toward the axis of the body, the deviation was effaced without difficulty, and without much pain; but it immediately returned on the withdrawal of the hands. It could also be exaggerated by carrying the leg outwards. In this latter movement, the articular “inter-line” between the internal condyles of the tibia and femur was very distinctly felt. There was, then, manifestly, besides the rupture of the neck of the peroneus, an evulsion of the internal lateral ligament from its

tibial insertion (inferred from the pain at this point), with *diastasis of the articular surfaces of the same side*. It was the fibrous and muscular tissues on the outside, principally the tensor of the fascia lata, which caused the internal condyles to project and separate. The external lateral ligament and the biceps muscle played, in this case, a less active part, since their inferior insertion had lost a part of its solidity by the rupture of the peroneus. The great lateral mobility of the knee led also to a supposition of a partial rupture of the crucial ligaments.

This lesion of the knee has been studied by Bonnet, on the dead subject. (Vide *Traité des maladies des articulations*, article *enlorse*.) He experimented by striking with a strong bar on the external surface of the knee, propped up so as to be out of the perpendicular; and the conclusions he arrived at are as follows: 1. In such injuries in adults of good constitution, the internal lateral ligament is almost always detached from its femoral insertion; in old men, or in other adults of feeble constitution, there is more likely to be fracture of the bone and particularly of the tibia; in children, separation of the epiphyses is the most frequent lesion. For the treatment Bonnet recommends to dress the leg so as to put the parts in their normal situations.

M. Bœckel, in the clinic he gave on this subject, remarked that the difficulty is to keep the leg set, and to overcome the elastic force which constantly tends to reproduce the diastasis. Experience has taught him that by maintaining the limb extended, we do not completely correct the deviation. For example, two years ago, he treated a robust young man, who was hit upon the outside of the knee by a bale of cotton which fell from a second story. The lesions were quite similar to those of the case under consideration, except for the fracture of the peroneus. There was enormous sanguineous effusion—intra and extra articular; inward projection of the knee; lateral mobility. After the absorption of the sanguineous infiltration, he applied a starched bandage reinforced by a strong internal splint after the style of Dupuytren, in order to bring the limb into the axis of the body

and efface the diastasis. The patient got well without any complication, and completely recovered the use of his limb; but the knee remained slightly deviated inwards. The reason is easy to understand, remarked M. Bœckel: in extension, all the ligaments of the knee, at least the lateral and crucial, are at the maximum of tension; as they are intended, among other functions, to limit extension. If, then, after they have been torn apart, they be allowed to heal in this position, they will remain elongated, in spite of the best apparatus of restraint, and the knee will retain a certain amount of inward deviation proportionate to their elongation.

To avoid this inconvenience, M. Bœckel proposed, in accordance with these views, in the case of the patient, whose case was the subject of the clinic, to fix the limb flexed at a right angle, thus relaxing the torn ligaments. After cicatrization, these ligaments would be shortened rather than elongated. Without doubt, extension of the limb would be, for a time, incomplete; but it would be easy to perfect it by forced movements, and then the shortened ligaments, by their traction, would bring the leg into its normal axis. This idea was carried out. The apparatus was finally removed the fifty-second day, when the joint was found to have recovered its firmness and its normal direction, while extension was somewhat limited. The limb was left free on a cushion, and was subjected daily to forced extension, gradually increased. Seven days afterwards, the patient began to walk. The injured leg entirely recovered its power of motion, and was perfectly symmetrical with the other.

For the sake of comparison with the foregoing case the clinical lecturer reports one of *fracture of the external condyle of the tibia, and rupture of the upper third of the peroneus, accompanied by slight displacement of the tibia outwards and forwards; attended, also, with production of a valgus knee*. In external appearance, this limb presented the same symptoms as the first case—there had been a blow of considerable violence on the outside of the knee; there was sanguineous effusion intra and extra articular; bending of the limb outwards; lateral mo-

bility. Yet a close examination disclosed very different lesions. After the swelling had subsided the condition of the knee was thoroughly investigated. Pressure along the internal lateral ligament caused no pain, and the ligament seemed to be intact. On the other hand, pressure on the external condyle of the tibia was very painful and produced crepitation. On seizing this portion of the bone between the finger and thumb, decided antero-posterior movement could be communicated to it. There was a line of fracture almost longitudinal which separated the external condyle of the tibia from the rest of the bone. The peroneus was also ruptured in its upper third. The internal condyle of the tibia remained in continuity with the diaphysis, but had swung into the inter-condylar notch of the femur, whence the inclination of the leg. Further, the whole bone had undergone slight rotation, obvious to the sight and to the touch. These lesions being ascertained, it was judged best to keep the limb extended. This was done, and twenty days afterwards it appeared to be perfectly straight.

Among the conclusions drawn are the following: a blow upon the knee striking from before backwards, bears upon the lateral and crucial ligaments at the same time, and may produce luxation. Whenever injury has produced a valgus knee with outward deviation of the leg, the causes of this condition should be carefully investigated, and if there be a sprain with rupture of ligaments, the limb should be kept semi-flexed.

*Preparations of Iron.*—Dr. Jeannel, of Bordeaux, writing to the *Gazette*, lays down thirteen propositions relative to the action of different preparations of iron introduced into the economy. We select a few of them.

III. The preparations of iron which are insoluble in water, but soluble in the acids of the gastric juice, should be administered with the food, because the latter induces the secretion of the gastric juice. Quoted from Mialhe.

VIII. As, on the one hand, the acid of the gastric juice is very weak, and as, on the other hand, the solubility of the oxides in fatty substances is very limited, it is useless to administer ferruginous prepara-

tions in large quantities at once, since all of them that has not been dissolved by the gastric juice in the stomach, or by fatty matters in the small intestine, must necessarily pass through the digestive tube and fatigue it like a foreign body. The black color which ferruginous preparations, converted into sulphate of iron, always impart to the feces, proves that a great part of the doses given is not absorbed.

IX. The salts of the metal rendered stable by citrate of ammonia; and also the bi-tartrate of iron and potash (*tartrate ferrico-potassique*), are absorbed by the stomach and the intestines: which fact explains why it is not indispensable to administer them with the food; and why they may be usefully given in larger doses than other preparations of iron.

XI. The salts of iron which contain organic acids, while at the same time they resist the decomposing action of alkalies, are not eliminated with the urine. They are assimilated and contribute to the reconstruction of the blood globules. This is the case with the lactate; citrate, rendered stable by citrate of ammonia; bi-tartrate of iron and potash. (Mialhe.)

XII. It is impossible to explain the chemical transformation undergone in the blood by the pyro-phosphate of iron and soda, and by the citro-ammoniacal pyro-phosphate of iron, the reconstructive action of which is however incontestable.

XIII. In the experiments of the laboratory, all the preparations of iron prevent the digestion of fibrine by gastric juice, the lactate alone excepted. We should be led to infer from this, that all ferruginous preparations were injurious to digestion, with the one exception: but we should not attach much importance to this inference which clinical experience formally contradicts every day. (Bondet).

*Ascites relieved by Copaiva.*—The London *Lancet* relates a case of ascites which got well under the use of copaiva. The urine—not albuminous—was increased in quantity from four to six times when the remedy was begun with.

*Feeding by the Nostrils.*—The introduction of nourishment into the stomach by way of

the nostrils has been practised latterly with good results, in patients who could not, or would not swallow.

*Coralline*.—At the *Académie Impériale de Médecine* the toxic property of coralline has been called in question.

*Sudden Canities*.—*L'Avenir National* cites the case. *Le Chirurgien-major* Farry was an eye witness of it. A *cipaye* of the army of Bengal was taken prisoner, and brought before the authorities to be interrogated, February 19, 1859. He was stupefied with terror. "Under our very eyes," says Dr. Farry, "and in the space of half an hour, the hair of the prisoner, which had been of a glossy black, became uniformly gray in all parts of the head."

Dr. F.'s attention was called to the phenomenon by the sergeant who had captured the man exclaiming, "He is turning gray." Several persons besides the surgeon watched the completion of the change, which was gradual, but accomplished in the space of time mentioned—half an hour.

*Case of Ovariectomy in a girl twelve and a half years old—Recovery.*

The *Union Médicale* of June 5th, in its report of a meeting of the Imperial Society of Surgery, gives the case. The child, who had never menstruated, was reduced to the last degree of debility and emaciation by an enormous abdominal tumor. The cyst, opened by cauterization after the manner of Recamier, gave issue to a large quantity of highly albuminous serum. Ovariectomy was performed March 15th, 1869. The tumor weighed twenty pounds, fluids, solids, and all. It was composed of three large cysts, with firm protuberances consisting of very vascular connective tissue. Frequent vomiting for thirty-six hours. Finally, complete recovery by second intention in forty-six days.

COMMENTS ON A CASE REPORTED IN THIS NUMBER.—We are indebted to our assistant Dr. H. H. A. Beach for the following comments on the case entitled, "Uterine Displacement," which is reported among the original communications of this number.

While the facts of the case of "Uterine Displacement" are presented in such a man-

ner as to direct special attention to the uterus, and the benefit resulting from the treatment of a diseased condition of that organ, we judge it to be a matter of no less importance that the points which the author designates as of "peculiar interest," together with other symptoms detailed in the report, are indicative of Graves's disease (Exophthalmic Goitre).

1. Debility.
2. Emaciation.
3. Inability to sleep (on account of palpitation of the heart).
4. Prominence of the eye-balls.
5. Enlargement of the thyroid gland (not to the size of an ordinary goitre), and subsequent diminution of the tumor.
6. Inordinate action of the heart (preventing sleep).
7. Disordered menstruation.

The suspicions are to a certain extent corroborated by the fact of the uterine disease having existed for eleven years before the appearance of the symptoms which induced the patient to seek for treatment; that these symptoms may disappear completely, with no more treatment than a change of air, though this happens rarely,\* and that the only treatment employed was the use of the pessary. The theory of the uterine lesion standing in the relation of a cause to the main symptoms (bronchocoele, prominence of the eye-balls and inordinate action of heart), does not seem tenable, if we consider that there was an enlargement and a prolapse of the uterus at the time the treatment was commenced; that when the report was made the prominent symptoms had subsided, but "some uterine enlargement" remained, and the prolapse was controlled by the pessary. Trousseau states, "Practitioners who did not know this complaint, thought that the peculiar mental condition of the patient and her palpitation, were merely curious nervous symptoms due to anemia or chlorosis, or to painful or irregular menstruation."† For an interesting case of the disease, with a description of the autopsy and a microscopical examination of the cervical sympathetic ganglia, reported by Dr. F. I. Knight, see Vol. i., No. 11, of this Journal. In No. 13 of the same volume is a transcription from the *Med. Chir. Review*, of a review of Virchow's "Lectures on Tumors," referring to the complaint, and another from *L'Union Médicale* of a case reported by Drs. Fournier and Ollivier.

\* Lectures on Clinical Medicine. A. Trousseau. Translation of New Sydenham Society, 1868, pp. 566-7.  
† Ibid., p. 551.

## Medical Miscellany.

**ADDENDUM—WIRE SPECULUM AND RETRACTOR.**—The wire used in the manufacture of this instrument is numbered 10 and 13 of Stubbs's (English) wire gauge.

F. H. B.

THE Report for the month of June from the Registrar's office of the City of Providence, says, The returns of deaths in the month of June indicate an unusually healthy condition of the city, and yet they present some very peculiar features, and some features of marked interest.

1. The percentage of mortality from consumption was unusually large; more than one fourth of the whole.

2. The number of deaths from accidents, paralysis, and diseases of the heart, was much larger than usual.

3. The proportion of males, among the decedents, was remarkably large.

4. The percentage of decedents under five years of age was remarkably small, only 11 per cent. of those of American parentage, and 21 per cent. of those of foreign parentage, and less than 17 per cent. of the total mortality. In most of our cities, at this season of the year, more than half of all the decedents are under five years of age; but in Providence, in the month of June, more than one half (nearly 52 per cent.) of the whole number of decedents were over forty years of age. There were 13 decedents over 70 years of age, and only 14 under 5 years.

Before the end of the present month, the heat of summer will probably produce a marked change, and increase the mortality of the city.

**NEW SYDENHAM SOCIETY'S PUBLICATIONS.**—Lindsay & Blakiston, Philadelphia, having made arrangements with the Hon. Local Secretary, Richard J. Dunglison, M.D., by and with the approval of the Society's agent in London, to act as agents in the United States for the publications of the New Sydenham Society, announce that they are now prepared to receive subscriptions for the year 1869, at ten dollars, payable in currency and invariably in advance, and to furnish any of the previous years at the same rate and on the same terms.

The practical character and permanent value of these publications, and the very low price at which they are furnished, commend them to the favorable attention of the Medical Profession in the United States.

**THE BLOOD AFTER ELECTRIC DISCHARGE.**—A correspondent of the *London Medical Times and Gazette*, writes thus:—In Dr. Richardson's interesting researches at the Polytechnic, he points out in his first lecture what appears to have been an error in the statement made by John Hunter—viz., that the blood does not coagulate after death by electrical shock. In his second lecture, when noticing the phenomena of arborescent marks, he relates the experiment of directing the charge of the Leyden battery through the ear of a white rabbit, and says, "The blood in these cases undergoes arrest of its motion, expansion, and pos-

sibly decomposition, by which some of the coloring matter is liberated."

Now, I would suggest that this experiment may serve to explain Hunter's observation. As the blood in the rabbit's ear undergoes a sort of sudden decomposition from the sharp tense discharge of the Leyden jar, so, in the cases adduced by the great physiologist, the lightning stroke may have been of peculiar character (and it should be borne in mind that the amount of discharge or destructive force of natural or atmospheric electricity must sometimes far exceed anything that can be produced artificially) so as to arrest the motion, and cause instantaneous decomposition and non-coagulability of the entire mass of the circulatory fluid.

THE interesting lectures of Brown-Séquard, which were to have lasted until his regular course commenced next winter, have been brought to a speedy and untimely close because the Faculty refuses to furnish the necessary material for experiments. The demand for animals was doubtless larger than our poor Faculty could pay for.—*Foreign Correspondent Medical Times and Gazette*.

SAWDUST pills would effectually cure many of the diseases with which mankind is afflicted, if every individual would make his own sawdust.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—The following communications have been received:—Bromide of Potassium in Epilepsy.—Case of Embolism.

**ERRATUM.**—Page 420, last issue, for "amoinohri" read *amointri*.

**PAMPHLETS RECEIVED.**—Monthly Report of the Superintendent of Agriculture for May and June, 1869, Washington.—The Proceedings of the Georgia Medical Association, held at Augusta, with the Constitution and By-Laws.—Transactions of the Twentieth Annual Meeting of the Georgia Medical Association, held at Augusta, April, 1869.

**DEATHS IN BOSTON** for the week ending July 10, 74. Males, 41—Females, 33.—Accident, 3—apoplexy, 2—asthma, 4—disease of the brain, 3—inflammation of the brain, 1—bronchitis, 3—cancer, 3—cholera infantum, 6—consumption, 10—convulsions, 3—debility, 1—dropsy of the brain, 4—drowned, 1—dysentery, 2—erysipelas, 1—scarlet fever, 6—typhoid fever, 3—disease of the heart, 2—hernia, 1—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 2—old age, 1—premature birth, 2—puerperal disease, 1—tumor, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 33—between 5 and 20 years, 5—between 20 and 40 years, 13—between 40 and 60 years, 14—above 60 years, 9. Born in the United States, 55—Ireland, 13—other places, 6.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, JULY 22, 1869.

[Vol. III.—No. 25.]

## Original Communications.

### A CASE OF EMBOLISM, WITH REMARKS.

Read before the Montgomery Medical Society, by SAM'L W. SEELEY, M.D.

MR. PRESIDENT AND FELLOW MEMBERS OF THE MONTGOMERY MEDICAL AND SURGICAL SOCIETY,—I desire to present to you to-night a heart, with the fibrinous clots found in it after death. I will give you a record of the case, and propose, if it be the will of the Society, to read to you an essay suggested by it, and prepared for the present occasion.

CASE.—J. W., freedman, aged about 45, was admitted into the Freedmen's Hospital of this city on Feb. 15th, 1868, with general anasarca and ascites, and distinct bruit over the heart. He was treated with diuretics and hydragogue cathartics, digitalis being a frequent ingredient in the former. He improved, and became apparently well, though the cardiac bruit remained, and on March 17th was at his own request discharged. I expected, however, that he would return again with like symptoms.

On the 7th of October he was re-admitted, having, during the summer, worked a good deal as a farm hand. He was at this time, however, in worse condition than before. The anasarca and ascites were greater, and he complained of a great deal of pain in the abdomen, and some about the precordial region. The cardiac bruit as before, not loud, but still easily heard, and as though it was at some distance from the ear. He was treated as before, sometimes becoming better, and sometimes worse, until, on Jan. 6th, 1869, the pain in the abdomen becoming very severe, and the dropsy increasing, I bled him to about  $\text{ʒvii}$ . from the arm, and put him on a regular allowance of farinaceous diet, and the recumbent posture the greater part of the time. He seemed much improved immediately after the bleeding, said he had not felt so well since he came into the hospital; this condition lasted, however, but a few days. The pain in the abdomen was referred to the

lower part of it, and was very severe. Whenever he arose from bed, he supported it with both hands, and walked with exceeding caution, lest he should increase the pain by jarring.

His pulse had always been very feeble, though he was quite a robust man. On the morning of Jan. 14th, 1869, I found him apparently slowly dying. Intellect perfectly clear; death taking place by the heart. He died at 6 o'clock that evening.

The next day I made a *post-mortem* examination. The heart was a little enlarged, and rather softer than natural. There was a dense, very tough, evidently old mass of white fibrine occupying both ventricles—very firmly attached by fine filaments amongst the columnæ carneæ, extending into the auricle on one side, and into the aorta on the other, as far as, and a little way into the left subclavian artery. Its attachment between the columnæ carneæ by those slender fibres was very firm, requiring a good deal of management and dexterity to remove them, even after the cavities of the heart were laid open.

The portion within the artery was unattached to its walls, not so tough as the other, and perfectly washed of all coloring matter. The under side of the long apron of the mitral valve was covered with a thin layer of lymph, and the edges of both the mitral and tricuspid valves were somewhat thickened. The pulmonary and aortic valves were both normal.

The cavity of the abdomen contained a large quantity of fluid, but no flakes of lymph or other signs of inflammation.

I was obliged to rest in my dissections from fatigue, not feeling well, and having no assistance. I had the burial of the cadaver deferred, so as to give me a chance for further dissection the next day, but I was too unwell to pursue the examination. I regret it very much, as I have strong suspicions that I should have found a portion of the fibrinous mass had been detached and carried forward into the aorta, and probably lodged near its bifurcation, giving rise to the severe pains in the lower part of the abdomen. At least, I found no cause for it

[WHOLE No. 2160.]

in the condition of the bowels or peritoneum.

Quære! Were these coagula of fibrine the result of an old endocarditis, which had remained there, impairing, but not stopping the circulation until a fresh attack, throwing out fresh exudation, had overpowered the organ?

#### ARTERIAL EMBOLISM AND HEART CLOT.

The literature of this subject dates back but a few years. The standard works on the practice of medicine and surgery make no mention of it to this day.

The teachers in our great medical schools have, until quite recently, passed it by without mention, so that it is not strange that many intelligent members of our profession should be unacquainted with its pathology. I had never heard of it myself until a few years ago, when having lost a patient, a very dear friend, with such appalling suddenness, and with a train of symptoms which baffled my attempts to classify her disease, I narrated her mode of death to my friend, Dr. Wm. O. Baldwin, who suggested to me that it was probably a case of heart clot. This first led me to look into its literary history, and the presence of those fibrinous clots in the heart, exhibited to you this evening, suggested to me the present essay.

To one who has stood by the bedside of one of these fatal cases, where the heart itself, or the pulmonic circulation, has been the seat of trouble, the theme will not lack interest.

Inflammation of veins and consequent obliteration has formed a part of the literature of our profession, for the past half century. Embolism of arteries from arteritis followed. But the plugging of an artery by clot, either of fibrine or blood, derived from the heart itself, or the venous system, seems not to have attracted the attention of the profession until rather a recent date.

Prof. Meigs mentions a paper—an inaugural dissertation, written at Halle in 1821—but it seems not to have excited much attention. Next in order—M. Legroux described a case before the French Academy of Medicine in 1837—where the patient, a lady, who had passed through an attack of acute rheumatism, was three months after troubled with uneasiness in the precordial region, an irregular pulse, and a loud bellows sound. She seemed to be getting well under antiphlogistic treatment, when at the end of a month violent pains came on suddenly in the legs and feet, with coldness of

the extremities. In a fortnight the arterial pulsation had entirely ceased in the lower limbs. Eight days before her death the same symptoms were observed in the left arm, and pulsation ceased there also. No gangrene took place. On *post-mortem* examination the cavities of the heart were found to contain old and adherent fibrinous clots, and the lining membrane of the auricles had lost its polish and transparency. The right subclavian artery, the termination of the aorta, and the common and external iliac arteries, were completely obliterated by old and adherent clots. Three of the lumbar arteries were closed by clots, which projected into the aorta like nail heads.

M. Legroux remarks—1st, This was originally rheumatic endocarditis.

2d, In consequence of this endocardial inflammation, fibrinous clots were formed in the cavities of the heart.

3d, The obliteration of the arteries was commenced by the expulsion of these coagula into the vessels.

4th, The arterial obliteration, at first imperfect, was completed by successive additions of coagulum, for the structure of the clots indicated that they had been formed at various times.

5th, The adherence of the clots to the walls of the vessels was the result of inflammation from their presence as foreign bodies.

The subject seems then to have rested quietly until, in 1847, Prof. J. Y. Simpson (to whose writings I am indebted for much of the early history of this disease) read a paper before the Edinburgh Obstetric Society, in which he presents a case as a text for his remarks, which was as follows:—

“A woman, after most severe and exhausting hæmorrhage in parturition, seemed to make a most satisfactory recovery, until, during the second week of her convalescence, some symptoms of irritation occurred, and one morning he found there was no pulse to be felt in the right arm lower than the elbow. The arm felt stiff, coldish and benumbed. After a while, first one and then the other lower extremity became similarly affected. Unmistakable symptoms of erratic phlebitis also showed themselves. The patient died, and the autopsy showed the humeral artery, at the bend of the elbow, shut up by an obstructing coagulum. The vena innominata of the left side and its affluent trunks were also entirely obstructed by coagulable lymph. The valves of the left side of the heart were perfectly covered with small wart-like excrescences. The lower limbs were not examined.”



About a year before becoming pregnant, she had severe rheumatic endocarditis, and had suffered much during her pregnancy from dyspnoea, sometimes amounting to orthopnoea.

Prof. S. continues his investigations, and announces the obstruction of arteries from cardiac vegetations as a frequent cause of death in puerperal women.

In the same year (1847), Prof. Virchow, of Würzburg, mentions several cases of occlusion of arteries from cardiac vegetations being carried forward into them until they met with obstruction from the calibre of the vessel.

The next in order seems to have been one of our own countrymen, Prof. Chas. D. Meigs, who, in 1849, boldly grasps the subject, and announces clot in the heart itself and the pulmonary arteries as one of the most frequent causes of sudden death in puerperal women. His descriptions are by far the most graphic of any that I have seen, and once read are not easily forgotten. He seems to have been the first to clearly and distinctly place before the profession the pathology and symptoms of heart-clot. Prof. Simpson, in his first paper, hardly yet grasps the idea of a clot in the great centre of circulation, but by subsequent observation and analysis he, too, comes to like conclusions with Prof. Meigs.

Several other papers have followed, from different authors, treating of the subject in the male and non-puerperal female.

Such is briefly the history of this disease.

Let us now consider the various sources from which these coagula are derived, as,

1st, From the heart itself.

2d, From phlebitis.

3d, From the uterine sinuses and iliac veins in parturient females.

That they may be formed in the heart itself is evident not only from the specimen exhibited to you to-night and the recorded cases of M. Legroux and others, but every one who has been familiar with autopsies has frequently seen them—the coloring matter of the blood entirely whipped out of them by the heart's action, and harder or softer, according to the length of time of their formation before death. They are generally found in cases who die by the heart, and were called by the older pathologists polypus of the heart. Let us briefly consider them, as originating in this organ:—

1st, As the result of endocarditis.

2d, From roughened valves from vegetations.

3d, From foreign bodies.

4th, Without any of these causes, from syncope or a diseased condition of the blood.

It is not difficult to conceive of fibrine being thrown out in endocarditis, for the endocardium is a serous membrane and obeys the laws of such membranes, one of which is the exudation of coagulable lymph in inflammation. Even slight inflammation will cause it, as witnessed in autopsies where the lungs are firmly glued to the chest, the patient never having complained of pain during life, or at least not being laid up with it. Such action of the membrane under high inflammation would furnish abundance of pure fibrine, which, forming a roughened surface, would aggregate still more from the circulating current, until a mass was formed nearly filling the heart. The one on the table is a case in point.

I recall a case of my own, of rheumatic endocarditis, where the heart's action was tumultuous, the pulse thready and hardly to be counted, and there was great dyspnoea. I raised the patient up in bed for the purpose of auscultating his chest. The dyspnoea was so great that I laid him down again. I had given my directions for the night, and had passed from the kitchen to the house, when his mother came running in to tell me he was dead. I was shocked, of course, at so sudden a termination of the case, though I had regarded it as a very serious one, and had invited my friend, Dr. Scott, to visit the patient with me, and we could not at the time account for it. In analyzing the case since, I am satisfied he died of heart-clot, which, being displaced by the effort of rising in bed, obstructed the flow of blood through that viscus. While examining him, just before death, his intellect was perfectly clear and his muscular strength considerable. I can account for his death in no other way, and I regret that I did not, by *post-mortem* examination, satisfy myself.

Secondly, from cardiac vegetations. It is an established fact that blood has a tendency to coagulate around roughened substances. Witness the whipping of newly drawn blood with a bundle of twigs. Let us suppose a heart whose valves are fringed with these vegetations. It has accustomed itself to these clogs upon its action, and has gathered force to overcome them and send forward a sufficient quantity of blood. But anything occurring to decrease the force or interrupt seriously the rhythm of its action, as syncope or nervous shock, it is easy to conceive of the fibrine of the

blood clinging to them, the sluggish current of the blood not being sufficient to wash it off as it is deposited. But the circulation gaining force, it is dislodged and carried forward until it is stopped in some larger or smaller artery, according to its size, or, sadder still, may remain and increase, plugging up the heart itself.

Nor are we left to hypothesis merely. I will give you a case, one out of five reported by Prof. Simpson.

"Ten days after the lady was delivered naturally and easily of her fifth child, she began to complain of numbness and pain of her right arm, which, with slight intermissions from opiates, &c., continued until her death, which took place at the end of three weeks. No pulsation could at first or subsequently be felt below the middle of the brachial artery. A week after this arterial occlusion in the upper extremity, a similar change took place in the right thigh, accompanied with severe pains. This ceased in great measure four or five days after, when unequivocal signs of gangrene showed themselves, commencing at the toes and extending to the knees. On dissection, the aortic valves were found by Dr. McFarlane to be covered with numerous vegetations, some of which exceeded a grain of linseed. The aorta was dilated, and studded with atheromatous deposits. At the points of obstruction (viz., the middle of the brachial and the commencement of the lower third of the femorals) fibrous clots were found, which completely closed these vessels. The upper or cardiac end of these clots contained, and was firmly attached to, a small, hard body, which was identical in size, structure and appearance with the valvular excrescences. The case needs no comment."

Mr. Paget and others give cases of the same nature, where larger arteries were involved, and also the heart itself.

Third, foreign bodies in the heart, as a pin or needle, which sometimes mysteriously find their way thither. Such cases are on record, and the autopsies have shown them to be a nucleus for the deposit of fibrine, but they are so rare that mere mention is sufficient.

Lastly, I would mention those cases, more strange than all the others, where, without any evidence of heart disease, sudden and most agonizing death, or embolism of arteries with its sad train of symptoms, occurs from heart-clot. It would seem to occur in those states of the system which predispose the blood to easy coagulation, as Bright's disease of the kidneys, the pu-

erperal state, profuse hæmorrhage, high inflammatory action when the lænet has been used too freely. Either of these conditions existing, a prolonged syncope would certainly endanger the life of the patient from coagulation of the blood in the heart.

In the cases recorded by Prof. Meigs, the patients were puerperal women, who had been exhausted by profuse post-partum hæmorrhage. A fainting from being raised to the upright position had given a chance to the superfibrinated blood to form a solid mass in the heart.

In my own case the labor was easy and natural, and the convalescence in all respects favorable until the beginning of the second week, when slight fever came on, of an intermittent type, which yielded in two or three days to quinine. On the evening of the fourteenth day I visited her, and found her sitting by the window. I spent considerable time with her in mirthful, jesting talk, little dreaming of the sad termination of the day. About 6 o'clock in the evening I was sent for in great haste, as the patient had fainted. I hurried to her bedside to find her panting terribly, her pulse very feeble and quick, countenance pale, and a wild look of terror in her eyes. In gasping, broken utterances she said to me, "Oh! doctor, I am terribly frightened." I tried to re-assure her, though I saw at a glance that it was not merely a common fainting fit that I had to deal with. She complained of no pain, but the dyspnœa was beyond all description terrible. It seemed as though the whole power of her will and the whole strength of her voluntary respiratory muscles were bent to this one task. I placed my ear to her chest; the air entered and filled her lungs perfectly. I plied stimulants very freely, and sinapisms to spine, chest and extremities. At times I thought the pulse a little stronger, but her condition went on from bad to worse, until nine o'clock—three hours from the time of her attack—when she died. Dr. J. F. Johnston saw this case with me, about half an hour before death. The intellect continued clear throughout. There was no *post mortem*. Whether the syncope was a cause or an effect, I do not know. She lost her consciousness but a few moments. She had sometimes complained a little of her heart, but never so as to consider it seriously, or to lead me to examine it for disease. There are two conditions which would give rise to the symptoms—viz., a plugging of the pulmonary artery, or a coagulum in the heart itself large enough to seriously impede the circulation. Whether the clot was

formed during the deliquium, or whether it was formed in the uterine sinuses or iliac veins previously, and, having been dislodged from its position, was carried in the venous circulation to the heart, thence becoming a cause instead of an effect of syncope, I cannot tell. Of this latter source of clot I shall speak after a little.

The dyspnoea was not from want of air in the lungs, but a want of oxygenated blood in the whole system. In other words, the whole system was calling upon the lungs and hurrying them up to supply the vital element, and they were doing their work nobly and well, but the circulation failed to furnish transportation for it.

Prof. Meigs gives a case of similar import, except that the patient had lost largely from post-partum hæmorrhage. The next day she was doing well, pulse 75. The accoucheur left her at 10 o'clock on that morning, and at 1 was again at her bedside, having been summoned hurriedly thither. She had sat up in bed to pass her water, soon after her attendant had left in the morning, and had fainted. Upon his return, he found her apparently dying; pulse 164, feeble and threadlike, the hands cold, the respiratory acts repeated at long intervals, depending solely upon her will, without rhythm, and performed with great violence.

Prof. Meigs saw her at 3, P.M., in consultation. He says:—"She supposed herself moribund, and, still breathing solely by the will, asked me, a stranger, with words broken by the occasional forced inspirations, 'Sir—do you—think—I shall be—alive—in half an hour?'" Having seen a case of the kind, his description brings up the patient's condition in bold relief to my mental vision. She died in thirty-six hours after the accident. The autopsy showed a whitish-yellow, chicken-fat colored coagulum filling the right auricle and ventricle and the pulmonary artery. The slight pulsation felt at the wrist was from such small quantity of blood as could be squeezed past the obstruction.

Phlebitis is another source of the origin of heart-clot and embolism. Many of the secondary abscesses which follow this disease are caused by it, as shown by dissection—the artery supplying the part in which the gangrene or abscess is developed being found firmly plugged with a fibrinous coagulum. The chief seats of embolism from this source are the pulmonary arteries and the heart itself. The reason for this is evident. All the systemic venous blood must pass through the right

heart and the pulmonary arteries before it can reach the systemic vessels. Any solid masses must, of course, be stopped in the pulmonary arteries or their sub-divisions. Accordingly we find cases where the obstructions commence first in the smaller branches, giving rise to lobular abscesses; or the larger, affecting a whole lobe; or larger still, plugging up the main artery, and finally the heart itself. The larger the artery the more imminent the danger, and death is the sure result if the main vessel or the heart is its seat. A small coagulum brought forward from the venous system becoming entangled in the columnæ carneæ of the right ventricle, would form a nucleus for further deposits from the blood until the heart is tamponed, as Prof. Meigs terms it, and death ensues, with all the agonizing symptoms detailed before. The frequent result of phlebitis is death in two or three days from the attack. Such cases are characterized by sharp, catching pains about the heart, fainting fits, weak, rapid pulse, &c.

The question suggests itself to me, and seems to demand an affirmative answer—if these cases do not die from heart disease, the coagulum originating in the inflamed veins and carried forward in the circulating mass.

Prof. Simpson gives six cases where death resulted in puerperal women from this cause, the coagula being derived from inflamed uterine, crural and hypogastric veins. Let me give you one of them.

"A robust woman, aged 30, after an easy delivery on the 1st of October, had severe hæmorrhage from adherent placenta, which had to be extracted. Her state was satisfactory until thirty-six hours after her accouchement, which was prolonged until the morning of the 3d of Oct., and was succeeded by febrile heat. The uterus was very tender to pressure, the skin hot and dry, the pulse 120, and there was anxiety, feebleness and violent headache. During the next three days, the symptoms became graver, and the pulse rose to 136 or 140. On the 6th of October she seemed better, but the great frequency of the pulse still produced serious fears. On the 8th, she reported herself as having passed a good night, and felt well. After noon, however, notwithstanding a warning to the contrary, she got up, but immediately fell to the ground, and rose with great difficulty. At the end of an hour and a half she was found sitting on the edge of her bed, and at 4 seemed dying. Her pulse was thread-like and difficult to count, her respirations very

frequent, 60 to 70 in a minute, her face was cold and blue, and bore the appearance of extreme anxiety; her extremities were cold. In a short time she became insensible, and died at half past ten in the evening.

On dissection, small portions of the placenta were, according to Dr. Hecker, found still adherent to the uterus. In its walls the lymphatics were found filled with pus, and the veins with fibrinous coagula. The left hypogastric veins were found obstructed with clots which extended for some distance into the tubes of the common iliac veins. The head was normal, but the trunk of the pulmonary artery was plugged by a thrombus or coagulum, extending into its two branches, and capable of being followed far into their ramifications.

Another case is still more impressive. A young woman, three days after delivery of her first child, was attacked with phlebitis of the left extremity, which yielded to appropriate treatment. But during convalescence she suddenly uttered a scream, fell down and expired.

On *post-mortem* inspection, the left crural vein and its branches were found obstructed with phlebotic coagula, which extended upwards to the junction of the crural and iliac veins. The pulmonary artery was filled with similar coagula, which could be traced into some of its smaller ramifications.

Prof. S. gives four other cases of similar import, all the result of puerperal phlebitis, and all dying from obstruction of the pulmonary artery.

It has seemed to me possible and even probable that sudden death often occurs in the lying-in woman from this trouble, where the coagula are derived from the veins within the pelvis independently of inflammation.

In the passage of the fœtus over the brim of the pelvis the veins must be sometimes strongly compressed, so as to totally interrupt the return current of blood. If the blood is predisposed to easy coagulation, why not form a coagulum during its stasis, which would be swept forward after the expulsion of the fœtus? I have no case in point, and submit the hypothesis for what it is worth.

I am strongly of opinion that in former times, when large and repeated bleedings were the fashion, many a life went out from coagula forming in the heart during the deliquium. In searching the records of those times, I am satisfied from the detail of symptoms that such was the case. The heart and brain were both weakened by the exhaustive use of the lancet, and the blood,

superfibrinated and predisposed to coagulate, would easily form a solid mass in the heart. I am tempted to give you details of one case in particular, found in Marshall Hall's Treatise on the Blood, but I fear to become tedious.

I would also call attention to the sudden deaths which not unfrequently occur in diphtheria. No satisfactory cause has been assigned for them. The extreme suddenness of the fatal issue, often a few seconds or minutes only intervening between progressive convalescence and death, would lead one to suspect that in the absence of any evident cause, such as the loosening of the false membrane blocking up the trachea, the fatal issue was caused from heart-clot. Let me give you here a single case, furnished me by our friend, Dr. Scott.

"A boy, aged 9 years, had had a severe attack of diphtheria; he was convalescing, the false membrane had cleared from the throat, and no apparent prostration showed itself. He was eating well; had just got out of bed to stool, supported by his mother, when he suddenly threw back his head and expired almost instantly."

Others have occurred in our own city almost as sudden. I regret that I cannot give the results of dissection, to set the question at rest.\*

It would seem strange that an organ usually so sensitive as the heart is, could become comparatively tolerant of the presence of such foreign bodies, and do its work for days, and even years, clogged with such an incubus. And yet such would seem to be the fact. The heart before you must have been gathering the fibrinous mass for some time. Witness the toughness of it, almost like leather, and the freedom from hæmatine. 'Tis true it has been macerating in alcohol for several days, but upon its first removal it presented much of its present appearance, except that it had rather a yellowish tinge. Like other organs, it learns to bear much, growing upon it gradually, which would suddenly kill in the case of a previously healthy organ. A small coagulum might, and has been known to remain for a long time attached to the columnæ carneæ, without giving rise to very unpleasant symptoms, so long as the circulation is otherwise healthy. But anything

\* Since writing the above, I have seen an article in the American Journal of the Medical Sciences for January, 1869, by J. Forsyth Meigs, in which reference is made to a paper on Heart-Clot in Diphtheria, published in the April No., 1864. As I have not the files of the Journal for the four years of the war, I cannot at present refer to it; but he seems to have established by dissection what seemed to me most probable, viz., that heart clot is the cause of sudden death in that disease.

which should weaken the heart's impulse, or impair its rhythm, or cause a superfibrillation of the blood, would light it up into a serious and probably a fatal trouble.

Of the prognosis of this accident, little need be said. You will have gathered from the foregoing remarks that it is almost always a fatal trouble. When the heart itself, the pulmonary artery or the aorta, is the seat of embolism, the case is surely and quickly fatal.

Where the arteries of the extremities are involved, much will depend upon the amount of disease in the general system, which caused the trouble. The simple occlusion of one of the arteries of the extremities is not necessarily fatal, as witness our feats with the ligature. A few cases are on record of recovery. One in the *London Lancet* for Dec., 1868; the embolism following an attack of pleuro-pneumonia, and seated in the femoral artery. Gangrene took place, followed by amputation and slow recovery. Another case is reported in the *American Journal of Medical Sciences*, where recovery took place.

The symptoms of arterial embolism are, great pain and numbness of the affected parts, decrease of temperature, cessation of pulsation below the occlusion, and increase of action above. Where the pulmonary artery is involved, there is often great pain over the sternum; frightful dyspnoea, while upon auscultation the air is found to enter the lungs perfectly; a small and rapid pulse; coldness of the extremities and pallor and coldness of the face, and in the early stage, a wild look of terror.

The treatment must be almost exclusively prophylactic. In parturient females, especially if they have lost largely from flooding, a most rigid, horizontal position, and if inclined to syncope, the head to be lower than the body. In all cases of cardiac disease, this is especially to be enforced.

In endocarditis, the great object should be to saturate the system with an alkali as quickly as possible. It is proved that alkalies have the power to dissolve fibrine, or at least, alkaline blood holds it in solution. Besides curing the rheumatism upon which it depends, you give the heart the best chance to escape present or subsequent trouble. I have had no experience in the use of such remedies in phlebitis, but I cannot see why they should not be useful.

Where the accident has already occurred, if in an extremity, the same treatment as after ligature of the artery should be adopted, viz., perfect quiet, the limb to be wrapped in soft, carded cotton, and gentle,

artificial heat kept up, all pressure being removed. A case is reported by Dr. J. Forsyth Meigs, where the subclavian and popliteal arteries were both occluded, during convalescence from a severe attack of scarlet fever. The above treatment, with stimulants, brought the little patient through, and saved both limbs, the circulation seeking out collateral channels.

In those most distressing cases where the heart or pulmonary arteries are involved, are we to stand idle spectators of the agonizing scene? By no means. True, we cannot stay the march of the fell destroyer, but we can ease the patient into her final slumber.

Prof. Meigs, in relating his case, says, that in order to correct the dyspnoea, the irregular rhythmless effort, he stood before the patient and told her to imitate him. He inhaled at regular intervals about 150 cube inches of air, which she, keeping her eyes upon him, closely imitated. In a few moments she had acquired the habit, and from that time till her death had no more merely voluntary respirations. This was accomplishing much. As we are left here to study only the euthanasia, opiates, too, will suggest themselves.

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#### PROBABLE CASE OF EMBOLISM OF THE SUBCLAVIAN ARTERY, RESULTING IN GANGRENE, SPONTANEOUS AMPUTATION AND RECOVERY.

By LYMAN H. LUCE, M.D., West Tisbury, Mass.

On the 2d of March, 1868, I was called to see Miss L., from whom I learned the following history:—The patient was an unmarried woman, aged 76; has been subjected during her whole life to the best hygienic influences, and consequently enjoys a state of health which is unexceptionable. It is a remarkable fact that she has never experienced a pain of any kind, with the exception of a slight toothache, never taken any drugs or applied for medical advice until her present illness. Parents were both healthy, her father living to the advanced age of 96. I ascertained that during the previous night she first perceived a sensation of numbness and pricking in the right hand and arm, with inability to raise it. There was entire loss of sensation and motion as far as the middle third. Pulse imperceptible as high as axilla, with marked diminution of temperature. Pulse in sound arm 80; some tenderness along the course of the vessels, but no pain. There was no evidence of any cardiac disturbance upon

auscultation, or any symptoms that indicated grave disturbance of the system generally. She had a good appetite and slept as well as usual.

My notes of the case are as follows:—  
March 4th.—There is now discoloration of hand and arm as far as middle third. Has passed a sleepless night, but still retains a good appetite. No pulsation below the subclavian. Pulse in sound arm 85. No pain, but a sensation of uneasiness and weakness. There is slight symptomatic fever, indicated by the pulse and flushing of the face. Left a bottle of McMunn's elixir, with directions to take twenty drops at bed time.

March 7th.—Discoloration extends as far as elbow; hand and wrist darker than at last visit, in fact, gangrenous. Still retains her appetite, and has slept well since taking opiate.

March 10th.—Arm less discolored about elbow, and temperature higher than during last visit. Is returning to its natural condition from above downward; has no pain. In other respects much the same as during previous visits.

March 13th.—Arm has returned to its natural condition from above downward as far as middle third, where a line of separation seems to be forming.

March 17th.—Line of demarcation is distinctly formed around middle third; the parts below are extremely fetid; large bubble filled with fetid serum project between the muscles which are visible. The patient was now advised to have the arm amputated, and the benefits which would result from an early amputation duly enforced. She utterly refused to submit to the operation, being firmly convinced that the arm would recover its former vigor and strength. The rapid disappearance of the discoloration about the elbow, and an imaginary pricking in the fingers which had been dead from the first, seemed to strengthen her in this belief. Details of the case from this date seem uncalled for, as there have been but slight constitutional symptoms, retaining throughout the disease a good appetite, often doing her housework, and never occupying her bed during the day. During March 4th, it will be seen by reference to the notes, there was loss of sleep and slight symptomatic fever; with this exception she has been as well as usual. From March 17th to September the arm has been undergoing gradual decomposition. During the last of July, 1868, the bones became visible, and in September began to show the effects of ulceration. On Sunday,

the 4th of July, 1869, the patient awoke to find her arm in the bed beside her detached; the whole process being accomplished in one year and three months. The stump is well formed, having the appearance of a flap operation, and but for the protruding bones would speedily heal. The treatment was mostly local. Cotton bats were applied at first to retain the temperature of the parts, and the patient instructed to keep the arm in a situation to favor the circulation. Carbolic acid was freely used to correct the fetor, and later in the disease incisions were made to let out the collections of fetid fluid. Straps were applied to give support to the flabby tissues. Apprehending rapid prostration, bark and stimulus were given, and a nutritious diet enjoined. These were discontinued after a few weeks, as there was no apparent need of them. The fortunate termination of the case in recovery, together with the almost entire absence of constitutional symptoms, render the diagnosis obscure. That there was an obstruction of some kind in the subclavian artery is evident; but any attempts to explain what one of the various pathological conditions which are known to produce such results, obtained here, would with the slight evidence be impracticable. The suddenness of the attack, in connection with loss of motion and sensation, together with the fact that the system of the patient was admirably adapted to the formation of large quantities of blood, are in favor of embolism.

#### BROMIDE OF POTASSIUM IN TETANUS.

It has been my fortune during the past year to have two cases of general tetanus and one of marked trismus under my care at the City Hospital. The first occurred during the excessive heat of last July in a girl of 17, who had suffered a crushing injury of the foot, requiring Chopart's operation.

The treatment was by morphia, death resulting on the eighth day after the occurrence of the tetanic symptoms. This case was reported at length in the Boston Medical and Surgical Journal, Sept. 17, 1868.

The second case was as follows. A Portuguese carpenter, 44 years old, fell from a staging, May 12th, 1869, producing a fracture of the right thigh, in which crepitus was found at two points six inches apart, with much shortening before extension was applied. There was also a slight scalp

wound. This man was, during the first week, in a depressed, lethargic condition, answering when roused, disinclined for food, frequently moaning although denying pain, and with a very feeble pulse. Pupils responding to light. On the eighth day there was first remarked an inability to open the mouth fairly, accompanied with stiffness of the neck. Next day the trismus had become very marked, so that the jaws could only be separated about a quarter of an inch; there was also oedema of the neck and of the left side of the face, with an erysipelatous blush behind the ear. The head could not be moved without causing great suffering. This state of things continued four days, the patient being fed every hour with small amounts of milk, beef-tea and wine, alternately. He also took one drachm of solution of morphia every six hours. On the sixth day from the occurrence of trismus there was an improvement in all respects, which continued from day to day until, on the 1st of June, all tetanic symptoms had disappeared.

The third case was of a carpenter, 17 years old, admitted June 6th, 1869. He reported that, two weeks previous, the base of great toe of left foot was punctured by a nail, and that, three days after, he had painful stiffness of the jaw, neck and back, which had continued to grow worse. Examination of foot showed only a slightly red point at the place he had indicated.

His condition was one of well-marked general tetanus. Opisthotonos. Neck, abdomen and legs rigid. Movements of arms quite free. Jaws could be separated only about a quarter of an inch, but patient could swallow. Sardonic grin very marked. Pulse 130. Bowels constipated. Occasional spasms, causing the patient to cry out. He was ordered one drop of croton oil, to be repeated if necessary, and to be followed by liq. morphiæ  $\mathfrak{z}\text{ii}$ , every four hours, with beef tea and whiskey at short intervals.

June 8th.—Condition rather worse. Convulsions more frequent. Trunk as rigid as if frozen. Legs immovable. Abundant sweating, accompanied by a miliary eruption. No effect from three drops of croton oil. Enema tube could not be forced through the sphincter except under ether. Could still swallow, and use his arms. He was ordered bromide of potassium  $\mathfrak{z}\text{ii}$ , every hour, continuing beef tea and whiskey, and omitting morphia. The next day a slight improvement was noted. Convulsions were less frequent, and the legs could be flexed by using a good deal of force. The pulse had

fallen to 65, at about which point it subsequently remained. The intelligence was dulled, but the patient took his food and medicine without much difficulty. From this time the amendment was progressive, convulsions ceasing entirely, and the rigidity of neck, back, jaws, legs and abdomen diminishing daily, and for the most part in the order named. As this improvement continued, the bromide of potassium was given less and less frequently, until July 1st, when it was omitted entirely. The amount taken during twenty-one days was not far from twelve ounces. During the first two days two scruples were given forty-two times. The only effects observed, other than a subsidence of tetanus, were dulness of the intellect, and slowness of the pulse. On the 4th of July the patient was discharged well. GEO. DERBY, M.D.

## Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 22, 1869.

### THE INTER-CAROTID GANGLION.

We translate the following from the *Gazette Hebdomadaire*.

Two different opinions have stood forth as leading theories upon the nature of this body. With Luschka, it is a glandular organ, composed of rounded or oval vesicles; or of ramifications of cylindrical tubes with rounded extremities bent upon themselves. These vesicles contain a layer of epithelium; also nucleated cells, together with free nuclei and molecular granules. In addition, a large number of nerves and nerve-cells are found in them. In short, the body is not a veritable ganglion, but a nervous gland.

Arnold, on his side, has arrived at different conclusions. According to him, there are neither glandular tubes nor glandular vesicles; but the organ is in great part composed of arterial glomeruli. Into each of these glomeruli penetrates an artery, which, by its ramifications and its multiplied and dilated folds, presents an appearance of glandular tubes. These arterial dilatations enclose a layer of epithelium and blood. Moreover, numerous nerves and ganglionic nerve-cells dwell in the midst of the glomeruli.

Dr. Pförtner has arrived at conclusions

which support the opinions of Arnold. He considers that injection, natural or artificial, has clearly shown that the alleged glandular vesicles are only vascular dilatations—arterial glomeruli. The abundance of nerves and ganglionic cells is likewise confirmed.

The function of the organ is deduced by Dr. Pförtner from its anatomical structure. The inter-carotid gland, he says, has relations both with the nervous and with the circulatory system; and may, therefore, be regarded, from its nervous affiliation, as an important centre of nutrition; and, from its connection with the carotid circulation, as a reservoir for regulating the pressure of the blood.

In the preceding translation the views of Arnold are alluded to as widely differing from those of Luschka. We are informed that Arnold's description is not clear, but that he and Luschka are agreed on the point that "the middle cervical ganglion," as it has heretofore been called, is not a "ganglion" in the ordinary acceptance of the word.

**CHOLERA versus CLEANLINESS.**—It is recorded, in the *Gazette Hebdomadaire*, that at a session of the Academie de Médecine in May, M. Fauvel mentioned a communication he had made three months previously as to what point of Europe was menaced by a new invasion of cholera. In that communication he had alluded particularly to the fears to be entertained relative to the region of the Red Sea on the occasion of the then approaching pilgrimage to Mecca. He had set forth, at the same time, the measures taken in view of the danger, in India, especially in the English Provinces; at the Red Sea; at the places of pilgrimage, and in Egypt. A very watchful interference is practised in the ports of the Red Sea. At Mecca itself, the Ottoman government has applied excellent hygienic and sanitary regulations on a grand scale. At the present time Mecca is provided with wholesome water in abundance, thanks to the inauguration of a new system of supply and distribution. Furthermore, enormous trenches have been dug to bury the

remains of animals immolated in sacrifice. Also, sinks have been made, containing various disinfecting agents, for the dejections of the pilgrims. The pilgrimage this year has been even larger than in 1865. One hundred and ten thousand votaries have visited the holy city. The greater part of them went in caravans; the remainder by sailing vessels and steamers. Those who arrive by water are subjected to quarantine, whence the preference of the Mussulman for the caravan. During the solemnities only forty deaths took place—a fact which proclaims the utility of the precautions adopted.

Accordingly, says M. Fauvel, the cholera was not imported from India into the Hedjaz, and was not developed during the pilgrimage; in spite of the report, happily contradicted, of its appearance on board certain pilgrim ships. Thus, he adds, the pilgrimage is ended, and Europe may be considered in no danger for this year from this source. \* \* \* \*

**COMPOUND FRACTURES OF THE LOWER THIRD OF THE LEG.**—The subject has been under discussion at the *Société Impériale de Chirurgie*. M. L. LeFort said compound fractures of the lower third of the leg are always grave. Either the fracture occurs from direct contusion of the limb, or else the wound is produced from within outward by osseous points. In the first case, the fracture rarely communicates with a joint, and the limb is preserved. In the second case the wound may be small or large. The bone may project, and be difficult of reduction. When the wound is small it is best to attempt the preservation of the limb, and to cover the wound with gold-beater's skin smeared with collodion. When there is a fracture at the lower portion of the leg, with little shattering, so long as it is believed that the joint is not penetrated, we should give the limb the benefit of the doubt, and endeavor to preserve it. I have, however, had a patient in this condition, who had toward the tenth day swelling in the region of the joint, and whom I had to subject to amputation. The fracture had not communicated with the articulation;



but the periosteum had been detached by suppuration, and the pus had penetrated into the joint. \* \* \*

*M. Demarquay.*—I could have wished to find in the communication of M. Le Fort a precise indication as to the conduct proper to pursue. Those who are always for amputating are less embarrassed than others. But there are patients who get well without operation. A conclusive reason for amputating would be the breaking off (*l'éclat*) of a fragment in the joint; but the part of its occurrence cannot be fully ascertained. If the articular fracture were known, amputation would be requisite. The signs of it are furnished only by the consecutive symptoms, and then amputation gives small chance of success. I have performed resections, but have lost many patients. I remain, therefore, in a state of uncertainty.

*M. Trelat.*—A general collection of statistics could alone decide the question in debate. If the anatomical diagnosis necessarily brought with it an exact prognosis, I should believe M. Le Fort to be in the right path. But, I do not think it is so. It cannot be said that every time a fissure penetrates the joint there will be fatal consequences. The patient may get well, notwithstanding M. Demarquay says that he would perform amputation if the articular fissure were recognized. But even then, I do not think that one should [infallibly] do the operation.

M. Trelat then related four cases in which there had been either manifest or else very probable signs that the joint was involved, and which had got well.

**RACIBORSKI ON MENSTRUATION.**—In the *Bulletin de la Thérapeutique* there is a sprightly review of a work by Raciborski on Menstruation in various of its relations. The reviewer says that the author claims the priority in the matter of counselling females who have arrived at a "certain period of life" to renounce the pleasures of the world, and in the interest of their health devote themselves to works of beneficence and charity. The tone of this sentence somewhat profanely reminds us of the advice of the Doctor to the *Dame aux Camélias*—though received by her much earlier in life—that

she stood in need of repose. The reviewer says Raciborski's counsel is in a measure preaching to the converted; for a long time ago Marguerite of Navarre declared that, at the age of 40, women should change from *belles* to *Dorcasés*—(*changer leur titre de belles en celui de bonnes*). Such things are not matters, he adds, of factitious invention. They sprout in the hearts of well-born women like mushrooms in the warm breath of night in the latter part of summer. M. Raciborski himself has a pet anecdote to show, as it is intimated, how circumstances sometimes lend themselves to the enforcement of the physician's edict. It tells of one of those women of the world, in whom the mushroom of autumn pushes its growth with unusual difficulty, and not without the attendance of neuropathic symptoms, liable to lead to a change of Doctor, if the medicine man employed be a novice. Now this lady, one day, suffering and disquieted, sent for our *confrère*, and at the conclusion of the interview promised that if she should get well she would submit to the wise advice with which he had for a long time importuned her. "I believe you are right, Doctor," said she. "I attribute my disorder to a keen mental disturbance. You know how we poor women are exposed in the world to be pursued by jealousy. Our pretended friends rarely pardon us the least success; and you know, my dear Doctor, that this was my lot for a long time. But, never before, in all my life, did I receive an affront like that offered me yesterday, in public, at the fancy ball of the Minister de ——. I had a ravishing toilette—a dress of pure white, covered with *ivy*, a brilliant on each principal branch. My hair was dressed to correspond. Everybody paid me compliments; and for an instant I had the weakness to believe in their sincerity. At the most blissful moment of triumph, however, a blue domino who was passing stopped, made a feint of examining me from head to foot, and cried out in a loud voice, 'To-day, my beauty, your toilette is irreproachable in point of taste. All is in harmony with the person. Ivy! Everywhere ivy! So appropriate to *ruins*.'" The conclusion of the little secret drama was that Madame —

submitted to cruel necessity, and from that day forth enjoyed perfect health. The reviewer well says that the story is a pearl which the writers of novels founded on fact would never think of looking for in a treatise on menstruation.

The reviewer gives unstinted praise to the work of Raciborski, but points out two *lacunæ* in the pathological history of the function in question. No mention is made, he says, of a certain morbid congestion which sometimes occurs in young girls at the time when menstruation is being set up—congestion of the thyroid gland.\* More than one goitre, he adds, has had this for its point of departure.

He also regrets that in connection with the description of the course of menstruation in typhoid fever, a fact is not mentioned which has been pointed out by others. It is that the menstrual function at its first onset is liable to become a morbid process so far as to simulate closely the prodromata of typhoid fever.

From the report of Dr. C. A. Walker, the Superintendent of the Boston Lunatic Hospital, for the year 1868-69, we take the following:—

There were remaining in the Hospital on the first day of May, 1868, one hundred and seventy-nine patients—ninety-four men and eighty-five women. Eighty-seven—fifty men and thirty-seven women—have been admitted during the year. Whole number under care and treatment during the year, two hundred and sixty-six.

Sixty-four have been discharged, and there are remaining at this date, two hundred and two—one hundred and nine men and ninety-three women, a number greater by twenty-three than at the corresponding time last year, and very much greater than at any previous period since 1857.

Of the admissions, thirty-five were by order of the Courts, fifty by the Board of Directors, and two by the Superintendent. The two admitted by the Superintendent, were of such a peculiar nature that they demand more than a passing notice. One of them came to the hospital late in the evening, and demanded admission for self-preservation. Dr. Fisher readily detected the suicidal tendency, and, of course, at once provided for him. He remained but a short time, and returned to his friends in a

comfortable and safe condition. The other, accompanied by his daughter, applied one afternoon for admission to protect his family (wife and daughters) from his murderous impulses. He stated that for many weeks he had been struggling against an inclination to kill his family and himself. His friends, and even his physician, laughed at his story, and told him it was all nonsense. Finding himself no longer equal to the struggle, he begged us to have pity on him and protect him. He was at once admitted, and, under suitable medical treatment, materially aided by his own personal feeling of relief and security, he rapidly improved. In a few weeks, he appeared to the casual observer, perfectly recovered, and thought himself well enough to return to his home and his business. His friends were advised that his apparent condition of health had no foundation, and that the case required prolonged hospital treatment. At that time, in many States, an application for a writ of habeas corpus would doubtless have been successful. His friends reluctantly yielded to the advice pressed home to them, and transferred him to another hospital, he having no claim upon this. For weeks after the transfer, he remained in a comfortable, quiet and rational state, the Superintendent declaring that, had he not come directly from us, he should have been troubled with grave doubts of his being a proper subject for custody in a hospital. One day he suddenly sprung from the dinner table, thrust his arms through the window, and made a furious and indiscriminate assault upon the persons present. Since then, he has alternated between seasons of maniacal excitement and apparent rationality. Who can doubt that, but for the promptness with which his appeal here was responded to, himself and his family would have been murdered, and the community stricken with excitement and horror! And, yet, during even his short sojourn here, so well did he, for the most part, appear, that a fair case of unjustifiable detention might have been made out against the hospital.

We are constrained to say that we do not share the regret expressed by Dr. Walker at the abandonment of the Winthrop farm as a site for a new Lunatic Hospital. On the contrary, it seems to us that if Nature had furnished a place on purpose to keep away from it such an institution, the spot indicated would be the very one. Dr. Walker, however, treats the matter as, what it no doubt is, a past issue.

But, why should the city of Boston build another Lunatic Hospital at all? If the present building is indeed so crowded with occupants—all city paupers and none of them chargeable to other towns—as to demand additional accommodation, why should not the State put up the new structure, charge Boston tax-payers with their proportion of the expense, and support our quota of the insane poor?

Though it is not competent for us to enlarge upon this point, it is quite within our province to state another and a strictly professional objection to the project in question. It is this. The chief topic of the day with the authorities upon—the *experts* in—insanity is whether it be for the best good of a considerable proportion of the unsound in mind to be congregated in hospitals. Some of the most eminent and experienced of those authorities are convinced, that very many of the harmless insane would be happier and otherwise better off than they are in our lunatic asylums, if boarded out under the supervision of proper commissioners, in the homes of the rural population. Though economy is not the motive of the proposed change, but the welfare of the patient, yet it is believed that the expense *per capita*, to the towns supporting the indigent insane, would be less than they now have to pay, and it is apparent that the hospital accommodation thus set free would be sufficient for the present demand. We say no more, but content ourselves with referring to the remarks of Dr. Tyler, of the McLean Asylum—already laid before our readers—with regard to the custody of the insane. Those remarks, it will be recollected, occur in the report of the Massachusetts Medical Society's Anniversary, on page 367 of the present volume.

THE CAROLINA SISTERS. *Mr. Editor*,—I have just seen a number of the *Richmond and Louisville Medical Journal* (January, 1869), that contains a description of these girls by Prof. S. H. Dickson, of Philadelphia, and that I should have seen and quoted from when I prepared my own recent description of them.

Prof. D. saw them in November, 1853, and his record then was:—"The vagina must divide and become double, as there

are, doubtless, two uteri (occupying the two pelves), and almost certainly two urinary bladders."

In May, 1866, Prof. D. again saw them and examined them *per vaginam*. The sacrum, he thought, was alone implicated. He found "one anus and one vulva, with two vaginae and two meatus urinarii. As they lie on Millie's right side the anal opening is below. At a corresponding point above and beyond the vulva there is" a cul de sac three fourths of an inch deep, "perhaps the trace of an abortive anus. The clitoris is double or bifid, and the openings of the two vaginae slightly projecting in the vulva lie side by side."

July 15.

J. B. S. JACKSON.

FROM the annual report of the Washington Home, Boston, for the year 1868, we quote a part of the list of officers for the year 1868-9, as follows:—

*President*.—Otis Clapp.

*Vice Presidents*.—Albert Fearing, Moses Mellen, Franklin Snow, Wm. Claflin.

*Executive Committee*.—Otis Clapp, R. K. Potter, S. B. Stebbins, Theodore Prentice, J. Emery, William R. Stacy.

*Secretary and Superintendent*.—William C. Lawrence.

*Physician*.—E. A. Perkins.

We make the following extracts from the Superintendent's report:—"Medicinal and dietetic agencies may do much to check and alleviate the disease [intemperance], and lessen the frequency of attack, but to effect a radical and permanent cure the subject must look within himself for the healing power. The *man* must be aroused and his moral nature excited to action. He must be led to hate intemperance for its sinfulness and utter vileness, and not simply and alone on account of its cost to his purse, health, and reputation. When thus affected his cure is certain, and every night at our regular meetings we have numerous evidences of this fact from men who, before coming to the Home, were pronounced incurable, who now count their years of reformation from one to ten, and, as one speaker aptly expressed it, serve as milestones on the road of life to guide and direct the young and trembling traveller on his way to usefulness and happiness.

"In regard to relapses and their causes, it is noticeable that a large proportion of such cases are more or less addicted to vices that lead to and accompany intemperance, or from the necessities of business, or from force of habit, have continued to maintain

their old associations, and consequently have been continually under the influence of temptation, which, sooner or later, results in indulgence and then in excess.

"Another class, for various reasons, have left the Home too soon, and before our system of treatment had been fully tried upon them, and hence have been but partially prepared to resist the assaults of appetite and habit.

"Before leaving the institution, all such patients are warned and counselled in relation to their future conduct, and proper advice, such as their condition requires, is given to aid them in avoiding peril and overcoming temptation. This duty performed, the result depends entirely upon the patient, whose own will determines his ultimate conduct."

"On the whole, the experience of the past year serves to add still more unmistakable evidence of the need and utility of our institution, and the necessity of its speedy enlargement and improvement, so as to cover a larger and more varied field of usefulness. As Boston has the honor of first introducing to the world this hopeful and philanthropic system for successfully combating and curing the greatest curse of our age—intemperance—we have the right to hope that the liberality of its citizens and the wise legislation of its government will soon erect an institution of such capacity and thorough adaptedness to the wants and requirements of the times as shall make it a perfect model for other cities and States to copy and emulate."

#### NEW YORK STATE INEBRIATE ASYLUM.—

From the Superintendent's Report of the New York State Inebriate Asylum for the year ending December 31, 1868, we learn that the officers are Willard Parker, M.D., President; Ausburn Birdsall, First Vice-President; Dr. John Conkling, Second Vice-President; William E. Osborn, Treasurer; Samuel W. Bush, Register; Albert Day, M.D., Superintendent and Physician.

The report says:—"A recent magazine article, in which this Institution and its management were described with sympathy and spirit, had the immediate effect of bringing to the Asylum a number of our most interesting and hopeful cases; and its influence is still felt. From Ohio, from Indiana, from Illinois, from Michigan, Missouri, North Carolina, and Mississippi, we have patients, arrived since the 1st of November, who attribute to that paper, or to

newspaper notices of it, either their first joyful knowledge of the rescue at hand for them, or confirmation in a previously conceived but wavering inclination to avail themselves of the way of escape, and the protection we offered them.

"This is the living, saving fruit of that small seed of hope and love so timidly and humbly planted more than seventy-five years ago, by the celebrated Dr. Rush, of Philadelphia, who was the first man to openly advocate the founding of Inebriate Asylums; and more recently by the distinguished and lamented Dr. Woodward, of the Insane Asylum at Worcester, Massachusetts.

"The glowing words of hope uttered by these gentlemen in their time have nestled in the hearts of nobly thinking men, until they have come to a full fruition in the establishing of this Institution, the noblest monument of the civilization of the age.

"Of the two hundred and twenty-eight patients discharged from the Asylum since the 1st of May, 1867, one hundred and thirteen appear to have permanently reformed, after a single probationary trial. Satisfactory reports of the condition of these have reached the Superintendent through the medium of correspondence addressed to him, either by the men themselves or by their friends.

"A large number of such letters have accumulated on our files, and they are in almost every instance most useful as well as interesting—not only by their emphatic, even eloquent, expressions of gratitude and happiness, but by their timely and impressive words of warning addressed to comrades and fellow-prodigals who still remained with us. By reference to the extracts from a few of these letters, which will be found in the Appendix to this report (and which are presented as fair samples of the whole), it will be seen how positive and safe has been the reform, and what a moral and social resurrection has come of it.

"Eleven have fallen after a first trial, and four after a second; but, returning and clinging to the Asylum, have likewise triumphed in the end.

"Of sixty-eight we have no certain tidings, nor any means of ascertaining their present condition; but as many of these were in a highly favorable state of physical and moral health when they left, I think we may confidently claim at least one third of the number (say twenty-three) as reformed.

"Twenty-five may be set down as fail-

ures and incorrigible. We have no word of cheering assurance from themselves or their friends. Only four have died; and three have been discharged insane."

**HYPOTERMIC INJECTIONS OF MERCURY IN CONSTITUTIONAL SYPHILIS.**—The question recently brought before the Imperial Society of Surgery as to the propriety of immediate amputation in comminuted fractures of the lower third of the leg, because of the frequent communication of the fracture with the tibio-tarsal articulation, or the exposure of the medullary canal, has, like many others, come to a close without the least result. But another subject, and one which will doubtless be lively discussed—that of treating constitutional syphilis by hypodermic injections of mercury—is to commence to-morrow. This will give to some of the members of the Society—M. Després, of the Lourcine Hospital, for instance, the bitter opponent of mercurial treatment in syphilis—again the opportunity to be heard on the subject. M. Després, though young and not a favorite, is by no means sparing in his arguments.

M. Liégeois has adopted this mode of treatment for syphilis at the Midi Hospital, and he has thus treated since January 15th, 1868, up to December 1st, 1868, 193 patients affected with syphilis. (The worst cases of secondary syphilis were chosen.) Of these 127 were cured, and 66 ameliorated. Of the 127 cured there were 6 relapses. The preparation used is corrosive sublimate, the dose per day 4 milligrammes, of which half is injected in the morning, half in the evening, making each injection 2 milligrammes only. The part chosen for the injections is the back of the body. The average number of injections employed was 72—36 days of treatment. No baths, no cauterization, in fact no other treatment was resorted to.

These are certainly results which deserve attention. I have myself witnessed several times the injections practised, and I may state that the patients complained of but little pain. No abscesses or sloughs are produced—two cases excepted, in which the canula had not reached the subcutaneous cellular tissue—no salivation, no diarrhoea or digestive troubles, such as have been observed by Berkeley Hill, Lewin, (a) Bardeleben, Sigmund, Bamberger, &c., who have used larger doses of mercury.

Another, and very unlooked-for, result from these injections is the increase in weight of the patients while under treat-

ment. The reverse is true when pills of (green) protiodide of mercury are administered. These same injections practised upon men in health cause a still larger gain in weight. Equal results are obtained in animals. M. Liégeois showed me two rabbits this morning which had been treated by injections of one milligramme daily for six weeks, causing an increase of nearly two kilogrammes in each. The urine of the patients under treatment, carefully analyzed, was found notably augmented in all its proportions, urea excepted. The two great acts of the organism, assimilation and disassimilation, are therefore increased, and M. Liégeois concludes mercury in small doses is a tonic. The announcement is startling; let others verify the fact.—*Foreign Correspondent of Medical Times and Gazette.*

At the last meeting of the International Commission for the Care of the Wounded on the Field of Battle, the most interesting manoeuvres of the Prussian army were executed. The field was exactly counterfeited. Wounded and dead were there in abundance (apparently), and the whole system was in action—surgery, hospital corps and ambulances. The wounded were brought in, the ambulances were equipped as in time of war, and the surgeons directed their attention to them and the patients so as to put to as effective proof as possible the efficiency of the sanitary arrangements. Each patient was cared for exactly as on the field of battle, and, it is possible, as one of the staff remarked, were noisier and more occupied in this affair than on the field of Koniggratz.

The *Gazette Médicale de Paris*, alluding to these movements, says:—"It is unnecessary to remark upon the value of such manoeuvres, which exercise perfectly the medical service of the army, so that all shall be provided and prepared for the day of war. The Prussians, it is evident, attach extreme importance to all that concerns the care of the wounded; they have studied with care and have adopted all the improvements which have been introduced into the ambulance system; and in the last campaign the perfect organization of the medical service was of enormous benefit to the army."—*Dublin Med. Press & Circular.*

PROF. SYME, of Edinburgh, who was seized with paralysis of the left side on the 6th of April, is now convalescent.

## Medical Miscellany.

We quote the following from the surgical items of the *Am. Lancet & Observer*. H. H. A. B.

**SPONGE TENTS.** By J. B. HUGH, M.D., Ridgeville, Ohio.—Knowing the fact that absolute or strong alcohol will quickly set the fibres of common sponge, after having been moulded or compressed into any given size or shape, I was led to the following quick and easy method of preparing sponge tents, tampons, &c.:—

The sponge is first thoroughly moistened with water and pressed as dry as the strength of the hand will permit: then having formed it into the desired shape and size by the hand, or by pressing into a quill or any other tube or mould, it is immersed into the alcohol. If the spirit is sufficiently strong (90 to 100 per ct.) the sponge is immediately set into the given shape, which it retains perfectly after the pressure or mould is removed. It is then hard, firm and inflexible, and may be trimmed to a sharp point or any other desired shape.

To restore it to its former size and shape it is only necessary to moisten it with a few drops of water. The alcohol sets the sponge perfectly, whether the amount of compression be much or little, so that the degree of dilatation, attainable by the use of tents thus prepared, will of course depend upon the size after moulding and the degree of pressure used. As this process of preparation works perfectly and without delay, its advantages are obvious.

It is no longer a secret of the chemist's laboratory that clear golden syrups can be made from starch and sulphuric acid; that delicious wines and brandies can be made from beet-root; that a barrel of peanuts can be transformed into excellent coffee; that lard can absorb an enormous quantity of water in certain conditions; that in fact there seems no limit to the adulterations that an intelligent and dishonest chemist can practise upon his fellow-men. All these marvels of chemical science have in these latter days become degraded into mere tricks of trade, and their chief beauty is in their capacity to enable unscrupulous dealers to lighten the pockets and destroy the stomachs of the confiding and consuming public. Concerning the article of champagne, a writer in the *Portland (Maine) Star* tells us that it is made from a thousand different substances—even from refined petroleum.—*Cincinnati Journal of Commerce* in the *Philadelphia University Journal*.

IN an oration entitled Discoveries in Science by the Medical Philosopher, before the Med. Society of London, March 8, 1869, by Sir G. Duncan Gibb, Bart., of Falkland, occurs the following passage:

By persistently investigating for many years the Pathology of Saccharine Assimilation, I was enabled to make the discovery that the urine in whooping cough is almost invariably saccharine, from causes that we can now understand. Also, that sometimes the sugar of the milk within the female breast undergoes fermentation and gives rise to the formation of animalcules before the fluid is withdrawn from the gland, also beautifully explained. Likewise that the fluid of some dropsies, as cures for example, is found to contain sugar. This last discovery was made some years prior to

that of Ferriehs, and was published by me as far back as 1846 in my Inaugural Dissertation on Morbid States of the Urine. By analyzing the tears shed by a lady afflicted with diabetes, not only was sugar found in them as was expected, but in the course of my experiments the discovery was made for the first time of the characteristic crystal of diabetic sugar, which had been figured in the *Archives of Medicine*, Beale's works on the Urine, the *Path. Transactions*, and other publications.

**NATURAL WINES.**—All natural wines, if any improvement is to be effected by age, must throw down a deposit, and thereby they become sweeter in bottle by the elimination of their tannin, tartarates, &c. From red wine the deposit contains tannin, which, uniting with the albuminous matter contained in the wine, forms a crust, that year by year becomes less and less, until at length it becomes so thin that it acquires the name of "beeswing." The deposit also takes the form of crystals, which will both adhere to the cork and fall to the bottom of the bottle like powdered glass. All natural wines that have been any length of time in bottle should therefore be decanted with care.—*Medical Press and Circular*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—The following communication has been received:—Records of Norfolk District Medical Society.

**CORRECTION.**—In the article on Bromide of Potassium in Tetanus, page 452, second paragraph, for "death resulting," read death occurring.

**PAMPHLETS RECEIVED.**—Treatment of Lachrymal Affections. By Prof. ARLT, Professor of Ophthalmology at the University of Vienna. Translated, with permission of the Author, by John F. Weightman, M.D., Philadelphia.—On the Detection of Red and White Corpuscles in Blood-stains. By Joseph G. Richardson, M.D., Microscopist to the Pennsylvania Hospital.—Earth-closets: How to make them and how to use them. By Geo. E. Waring, Jr., New York.

**DEATHS IN BOSTON** for the week ending July 17, 99. Males, 56—Females, 43.—Accident, 8—annexia, 1—apoplexy, 2—inflammation of the bowels, 3—congestion of the brain, 4—disease of the brain, 4—inflammation of the brain, 1—canker, 1—cholera infantum, 8—consumption, 15—convulsions, 1—croup, 1—diabetes, 1—diarrhea, 3—dropsy of the brain, 3—drowned, 1—dyspepsia, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 5—typhoid fever, 1—zosteritis, 1—disease of the heart, 5—hemorrhage, 1—infantile disease, 1—intemperance, 1—intussusception, 1—jaundice, 1—congestion of the lungs, 2—inflammation of the lungs, 1—marasmus, 4—old age, 1—peritonitis, 1—premature birth, 7—præmia, 1—suicide, 1—teething, 1—unknown, 1—whooping cough, 2.

Under 5 years of age, 53—between 5 and 20 years, 7—between 20 and 40 years, 20—between 40 and 60 years, 8—above 60 years, 11. Born in the United States, 72—Ireland, 19—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JULY 29, 1869.

[VOL. III.—No. 26.]

## Original Communications.

### MEDICAL EVIDENCE.

By ALEXANDER YOUNG, Esq., of the Suffolk Bar.

The importance to the medical man of a knowledge of the principles of Evidence will hardly be questioned by persons familiar with the practice of the courts. In his ordinary experience he may at any time become cognizant of facts which may be the subject of legal investigation, and upon which his testimony may be required, either as an ordinary witness or as an expert. Upon the elucidation of these facts or the expression of his opinions by the medical witness, the security of life, reputation and property depend. For his own sake, and for the credit of his profession, it becomes an imperative duty that these grave and important interests should not be jeopardized by his ignorance, negligence or apathy. Society, too, whose most weighty concerns are intrusted to his charge, has a right to demand that the medical man should bring to the assistance of the courts of justice the best and ripest fruits of his professional knowledge and experience. The correctness of these propositions will hardly be questioned by the intelligent practitioner, but it is not less certain that the value of these qualifications will be impaired by his ignorance of the rules and principles of evidence, and that the finest professional attainments and the most rigid conscientiousness will not supply the want of this special knowledge.\* One reason why most medical men are less familiar with the subject than some other classes of the community, is their exemption from jury service, which, however essential to the proper discharge of their professional duties, prevents their acquiring that practical knowledge which can only be partially and

imperfectly learned from books. Undoubtedly, also, no unimportant cause of the unmerited reproach which has sometimes been cast upon the medical profession, in connection with this subject, arises from the fact that it has no tribunal which can expose and punish quacks and pretenders, whose misdeeds are often attributed to regular practitioners. In this respect the lawyers have an advantage over their medical brethren, as the court can not only expel a member of the bar who has been proved guilty of culpable misconduct, but, what is of more consequence, wholly deprive him of professional practice. This power of enforcing its decrees in the only way which is really effective—through the pockets of the offender—is the touchstone of trickery. The primary cause of this trouble springs from the impossibility of subjecting the claims of quackery to the test of publicity. The secrets of the sick chamber are known to few; the patient may get well in spite of bad treatment, and thus the empiric receive the credit which belongs to Nature, and achieve a success far beyond that of many honest and faithful practitioners. Dead men tell no tales, and living victims are not anxious to make public confession of their indiscretions or gullibility. But the legal charlatan is subjected to the scrutiny of his professional associates, and his position at the bar of public opinion depends upon his status at that of the court. The greater facility in tracing the operations of the member of the legal profession, as well as the greater certainty in the subjects treated of, makes the task of selection and discrimination in the choice of an adviser easier to the average man; and thus it is that the person who wouldn't trust a dollar in the hands of an incompetent attorney will risk his life in the clutch of the piratical physician. The opportunity which is afforded by the courts to the medical man, as a witness in important cases, to vindicate the skill, learning and integrity of the profession, and to render essential service in the cause of justice and humanity, should be more highly esteemed than it seems to be by medical men.

[WHOLE No. 2161.]

\* "There is no greater or more common mistake among medical men than to suppose that an experienced practitioner is necessarily a skilful medical expert or a safe medical witness."—Lecture by Prof. Christison before the Royal College of Physicians, Edinburgh. Lond. and Edin. Journ. of Med. Science, Nov., 1851, p. 492.

The medical man may be summoned before the courts, either as a witness to facts which have fallen under his own observation, or to give his opinion in a case where, although the facts may be unknown to him, he is specially conversant with the subject-matter which they illustrate. Peculiar skill, experience, or education in relation to the question at issue, are the qualifications which fit him to testify as an expert. In the former case he is in the position and receives the fees of an ordinary witness, which are charged in the costs, and are ultimately paid by the losing party; while in the latter his compensation is the result of an agreement with his employers, and comes out of their pockets. We shall have occasion hereafter to consider the evil consequences to the cause of justice of this relation between the expert and the party making use of his services. An interesting English decision in regard to the distinction between the rights of the ordinary witness and the expert in respect to compensation was made in the case of *Webb v. Page*,\* in which a skilled witness refused to testify until paid for his services and loss of time. Mr. Justice Maule then held that "the former is bound, as a matter of public duty, to speak to a fact which happens to have fallen within his knowledge; without such testimony the course of justice must be stopped. The latter is under no such obligation. There is no such necessity for his evidence, and the party who selects him must pay him." The question whether a witness is bound to attend court on being served with a subpoena when he has no knowledge of the facts to be proved, is one of considerable importance to medical men. In a case before the late Lord Campbell, in 1858, the learned judge stated, in answer to an inquiry, that a scientific witness was not bound to attend upon being served with a subpoena, and that he ought not to be subpoenaed. If the witness knew any question of fact he might be compelled to attend, but he could not be compelled to give his attendance to speak to matters of opinion. Subsequent decisions to the same effect have settled the rule in England,† and we apprehend it would be generally adopted by the courts in this country. In a case‡ in the U. S. District Court, Mr. Justice Sprague refused to compel the attendance of an interpreter who had neglected to obey a subpoena. The learned judge

said that "a similar question had heretofore arisen as to experts, and he had declined to issue process to arrest in such cases. When a person has knowledge of any fact pertinent to an issue to be tried, he may be compelled to attend as a witness. In this all stand upon equal ground. But to compel a person to attend merely because he is accomplished in a particular science, art, or profession, would subject the same individual to be called upon in every cause in which any question in his department of knowledge is to be solved. Thus, the most eminent physician might be compelled, merely for the ordinary witness fees, to attend from the remotest part of the district in which a medical question should arise. This is so unreasonable that nothing but necessity can justify it. The case of an interpreter is analogous to that of an expert. It is not necessary to say what the Court would do if it appeared that no other interpreter could be obtained by reasonable effort."

Although in theory the expert is supposed to be profoundly conversant with the question on which he gives his opinion, yet in practice considerable latitude has been allowed by the courts. In *Folkes v. Chadd*,\* the earliest reported case on the subject, Lord Mansfield defined experts as "persons professionally acquainted with the science or practice in question." The general doctrine is well expressed by Mr. Smith in his note to *Carter v. Boehm*.† "On the one hand," he observes, "it appears to be admitted that the opinion of witnesses possessing peculiar skill is admissible wherever the subject-matter of inquiry is such that inexperienced persons are unlikely to prove capable of forming a correct judgment upon it without such assistance; in other words, when it so far partakes of the nature of a science as to require a course of previous habit or study in order to the attainment of a knowledge of it, while, on the other hand, it does not seem to be contended that the opinion of witnesses can be received when the inquiry is into a subject-matter, the nature of which is not such as to require any peculiar habits or study in order to qualify a man to understand it." In the application of these principles to the testimony of medical witnesses there is a great want of uniformity in judicial decisions. While many courts are disposed to allow physicians in general practice to express opinions upon questions in those branches of their profession in

\* 1 Carrington and Kirwan, 23.

† Taylor's Med. Jurisprudence, 6th Amer. ed. p. 38; Redfield on Wills, 2d ed., part i. p. 155, note 46.

‡ In the Matter of Roelker, 1 Sprague's Decisions, 276.

\* 3 Douglas, 157.

† 1 Smith's Leading Cases, 286 a.



which they have had little or no opportunity of acquiring practical information, the true rule would seem to require the restriction of their testimony in such cases to facts observed by them, reserving for persons of peculiar skill and experience the right to introduce their opinions in evidence. This distinction, which is too often disregarded, is recognized in some recent cases in this Commonwealth. In *Baxter v. Abbot*,\* the Supreme Court held that upon the trial of an issue of the sanity of a testator, a physician who had practised for many years in his neighborhood, and had at times been his medical adviser, and who saw and conversed with him a short time before the making of his will, is competent to state his opinion of the testator's sanity, though he has not made mental disease a special study. There are sweeping *dicta* of the learned judge who delivered the opinion in this case which have led some writers† to give a broader interpretation of the law than is warranted by the decision of the Court. The decision has been commented on by the Court in a later case, to which we shall have occasion to refer; and in admitting the opinion of the family physician, who was not an expert, in regard to the testator's sanity, the law, as interpreted in this State, was stretched to its extreme limit. In *Commonwealth v. Rich*,‡ the Court decided, in accordance with the distinction just referred to, that a physician who had not made the subject of mental disease a special study, but who, when his patients have required medical treatment on insanity, has been accustomed to call in the services of a physician who had made this subject a special study, or to recommend the removal of the patient to an insane hospital, is not competent to testify as an expert upon a hypothetical case put to him; nor to testify whether a person living in his neighborhood and well known to him, but who had never been his patient, was competent to apply the rules of right and wrong, in a state of circumstances concerning which he was under high excitement or the influence of an uncontrollable impulse. And in the still later case of *Commonwealth v. Fairbanks*,§ the Court decide that the opinion of a witness who is not an expert, as to the sanity of one charged with crime, is incompetent, although based upon his own knowledge of facts. The Court evidently regard the case of *Baxter v. Abbot*, just referred to, as the extreme

limit of the law on this subject, and remark, "it was only held, by a decision not unanimous, that the opinion of a family physician as to the sanity of a testator might be introduced in evidence. But in general, where the jury have the facts in detail, they are as competent to form a correct judgment as the witness; and the practical experience of those familiar with courts shows that the defence of insanity is one easy to be made, and favorably listened to by juries. The rule, therefore, should not be extended beyond the adjudicated cases."

The qualifications of special knowledge and experience in an expert were insisted on by our Supreme Court in the case of *Emerson v. Lowell Gas Light Co.*,\* which was tried in 1863. It was held that in an action to recover damages for injuries to the plaintiff's health from the escape of gas, a physician who has been in practice for several years, but who has had no experience as to the effects upon the health, of breathing illuminating gas, is incompetent to testify thereto as an expert. And experience in attending upon other persons who were made sick by breathing gas from the same leak was held insufficient. Mr. Justice Chapman, who delivered the opinion of the Court, remarked that "the mere fact that the witness was a physician, would not prove that he had any knowledge of gas without further proof of his experience, for it is notorious that many persons practise medicine who are without learning; and a physician may have much professional learning without being acquainted with the properties of gas, or its effect on health. And the observation of a man who is at the time inexpert is of no value, and does not qualify him to give opinions." In a previous case† it was decided that a college graduate, who testifies that at college he studied chemistry with a distinguished chemist, that he has taught chemistry five years, is acquainted with gases, has experimented with them and used apparatus, and knows how camphene is made, but has never experimented with lamps or made or used camphene, or paid particular attention to fluid or camphene lamps, is competent to testify as an expert on the safety of a camphene lamp which he has never before seen. In some States the reasonable rule which requires that the medical expert should be engaged in the practice of his profession is not enforced—a study of it being held sufficient.‡ In a recent case in Mississippi§ it

\* 7 Gray, 71.

† See *Redfield on Wills*, 2d ed., part i. pp. 153-154.

‡ 14 Gray, 335. § 2 Allen, 511.

\* 6 Allen, 146.

† *Bieree v. Stocking*, 11 Gray, 174.

‡ *Tullis v. Kidd*, 12 Alabama, 642.

§ *New Orleans & Co. v. Allbritton*, 38 Miss, 212.

was decided that it is not necessary that a physician should be a graduate of a medical college, or have a license from any medical board to practise, in order to render him competent to testify as an expert in relation to matters connected with his profession. Mr. Justice Aldis, of the Supreme Court of Vermont, remarked in a late case,\* that physicians in general practice, and nurses accustomed to attend the sick, are experts in regard to the mental capacity of sick persons; but while the first proposition seems too broadly stated, the second is utterly untenable, and its adoption would inflict on courts and juries an amount of dogmatic garrulity and theorizing twaddle which would obscure rather than enlighten their minds. In all fairness we must say that courts that allow persons of merely nominal qualifications to assume the responsible position of experts, cannot complain if they are misled by their blind guides. In the Southern and Western States there may be some excuse for intrusting to incompetent hands the duties which otherwise could not be performed at all, but we regret to see such a course adopted in States where the necessity for it does not exist.

The fact that Courts permit persons of various degrees of knowledge and experience to testify as experts should make the medical man who cares anything for the honor of his profession, or for his own reputation, solicitous that the confidence reposed in him should not be abused. He should not, therefore, thrust himself forward to give an opinion in a matter of which he knows little, or nothing. The duty of the expert is to enlighten the court and jury, and he certainly has no right to set himself up as an instructor, when he is ignorant of what he assumes to teach. Nor is it politic for such a man to attempt to palm off his inexperience for experience, and his misinformation for knowledge. Under the severe scrutiny of counsel in cross-examination his pretensions will be exposed, and the cause which he is expected to benefit may be hopelessly ruined by his blundering incapacity. The wish to appear learned sometimes influences the witness to make a pedantic use of technical terms, and even professional men who are not troubled with a desire to parade the treasures of their vocabulary often use language which, although intelligible enough to the scientific student, is wholly beyond the comprehension of the court and jury. The following anecdotes, which we take

from an English work of high authority, illustrate the ridiculous extent to which this practice has sometimes been carried. "In a case of alleged child-murder, a medical witness being asked for a plain opinion of the cause of death, said that it was owing 'to atelectasis and a general engorgement of the pulmonary tissue.' On a trial for an assault which took place at the assizes, some years since, a surgeon in giving his evidence informed the court that, on examining the prosecutor, he found him suffering from a severe contusion of the integuments under the left orbit, with great extravasation of blood, and ecchymosis in the surrounding cellular tissue, which was in a tumefied state. There was also considerable abrasion of the cuticle.' *Judge*: 'You mean, I suppose, that the man had a bad black eye.' *Witness*: 'Yes.' *Judge*: 'Then why not say so at once?'"\* Although it is sometimes almost impossible for the medical witness to avoid the use of technical terms, without the sacrifice of precision and accuracy, yet in general they need be employed but sparingly, and their meaning should in all cases be explained.

While it is obviously important that the opinions of the expert should be made clear to the jury, it is of still more consequence that they should be conscientiously and deliberately formed. And here the witness must be on his guard against the unconscious bias which is the result of entertaining preconceived views on the question at issue. This bias is liable to be increased by the consciousness that the parties for whom he appears expect him to support a theory favorable to their side of the case. The tendency of mankind to generalize their knowledge, which has often been noticed by philosophers, leads them to see in new facts whatever confirms their established views, and to ignore or pervert what conflicts with them. It has been said by an eminent philosophical writer that this tendency to look at realities only through the spectacles of an hypothesis, is perhaps seen most conspicuously in the fortunes of medicine.† Especially should this propensity

\* Taylor's Med. Jur., 6th Am. Ed., 53.

† Hamilton's Metaphysics, p. 53: See also Discussions, p. 242. A more recent thinker, whose bold generalizations sometimes strikingly illustrate the habit which he criticizes, remarks that "an average intellect when once possessed by a theory can hardly ever escape from it. This is the case with the ordinary practitioners, whether in medicine or any other department, extremely few of whom are willing to break up trains of thought to which they are inured. Though they profess to despise theory, they are, in reality, enslaved by it. All that they can do is to conceal their subjection by terming their theory a necessary belief." Buckle's Hist. of Civilization, vol. ii. pp. 536, 537. The essential qualifications of

\* Fairchild v. Bascomb, 35 Vt. 378.

be guarded against on the witness stand, where a state of facts may be presented which would naturally lead the expert to change his views, if he could free himself from the clinging bias of prejudice or self-interest. He should, in such cases, remember that the truth is what he is sworn to state, no matter what may be the consequences to his pride of opinion or the interests of his employers, and an unconscious or intentional disregard of this simple rule has produced those deplorable contradictions and inconsistencies which have been so often commented on by the courts. In reference to this matter, an eminent authority, Mr. Justice Grier of the Supreme Court of the United States, made the following remarks in delivering the opinion of the Court in *Winans v. New York and Erie Railway*.<sup>\*</sup> "Experience," said the learned judge, "has shown that opposite opinions of persons professing to be experts may be obtained to any amount; and it often occurs that not only many days, but even weeks, are consumed in cross-examinations to test the skill or knowledge of such witnesses, and the correctness of their opinions, wasting the time and wearying the patience of both the court and jury, and perplexing instead of elucidating the question involved in the issue." And in his charge to the jury in the recent trial of Andrews in this Commonwealth, Chief Justice Chapman thus alludes to the conflicting opinions of the medical experts in the case. "I think the opinions of experts are not so highly regarded as they formerly were. For while they often afford great aid in determining facts, it often happens that experts can be found to testify to any theory, however absurd."<sup>†</sup> To these opinions, we may add that of the late Chief Justice of Vermont, a jurist of high reputation, who, in his valuable work on Wills, remarks that "experience has shown, both here and in England, that medical experts differ quite as widely in their inferences and opinions, as do the other witnesses. This has become so uniform a result with medical experts of late, that they are beginning to be regarded much in the light of hired advocates, and their testimony as nothing more than a studied argument in favor of the side for which they have been called. So uniformly has this proved true in our experience that it would excite scarcely less surprise to find an expert

called by one side, testifying in any particular, in favor of the other side, than to find the counsel upon either side arguing against their clients and in favor of their antagonists."<sup>\*</sup> It is proper to remark here that Judge Redfield, in making these observations, disclaims any imputation on the integrity of medical experts, but regards their conflicting testimony as the natural consequence of the manner in which this class of witnesses are employed by the parties in a case.

These views in regard to the unsatisfactory character of the testimony of medical experts are not peculiar to the legal profession; they have been emphatically expressed by distinguished medical men both in this country and in Europe. "The task of instructing the tribunals," says Dr. John Gordon Smith, "is often delegated to those who are the least qualified; and it is absolutely disgusting to observe the displays that are frequently and unavoidably made on the part of incompetent substitutes. Lads whose knowledge of the medical sciences can be little more than a name, and the whole of whose practice in the medical art can have extended no farther than spreading a plaster, mixing a draught, compounding a pill, administering an enema, or at the utmost extracting a tooth and performing the operation of phlebotomy, are appointed to enlighten the judges of the land, who are, in all probability, deeper read in the medical sciences, than the sage instructors of these witnesses themselves."<sup>†</sup> "The testimony of really competent witnesses," remarks an eminent authority on mental unsoundness,<sup>‡</sup> "may be contradicted by that of others utterly guiltless of any knowledge of the subject, on which they tender their opinions with arrogant confidence—for ignorance is always confident—and the jury is seldom a proper tribunal for distinguishing the true from the false, and fixing on each its rightful value. If they

<sup>\*</sup> Redfield on Wills, 2d ed., part i. pp. 103, 105. The writer has special reference to medical experts on insanity. He cites in support of his views, the opinion of Mr. Justice Davis of the Supreme Court of Maine, who, after saying that he considers juries far more trustworthy than experts on the subject of insanity, remarks, "If there is any kind of testimony that is not only of no value, but even worse than that, it is, in my judgment, that of medical experts. They may be able to state the diagnosis of the disease more learnedly; but upon the question, whether it had, at a given time, reached such a stage, that the subject of it was incapable of making a contract, or irresponsible for his acts, the opinion of his neighbors, if men of good common sense, would be worth more than that of all the experts in the country." P. 101.

<sup>†</sup> An Analysis of Medical Evidence, London, 1825, pp. 36, 37.

<sup>‡</sup> Ray on the Medical Jurisprudence of Insanity, 4th ed. § 45.

the skilful medical practitioner have been well discriminated by Bain—Senses and the Intellect, p. 529.

<sup>\*</sup> 21 Howard, 101.

<sup>†</sup> Boston Med. and Surg. Journal, Feb. 25, 1869.

are obliged to decide on professional subjects, it would seem that they should have the benefit of the best professional advice. This, however, they do not always have; and consequently the ends of justice are too often defeated by the high-sounding assumptions of ignorance and vanity." These remarks of Dr. Ray may be fully supplemented by those of an eminent English practitioner. "There can be few better tests of a sound understanding," says Sir Henry Holland,\* "than the right estimation of medical evidence; so various are the complexities it presents, so numerous the sources of error. It must be admitted, indeed, that this matter of medical testimony is too lightly weighed by physicians themselves. Else whence the so frequent description of effects and causes by agents put only once or twice upon trial; and the ready or eager belief given by those who, on other subjects, and even on the closely related questions of physiology, would instantly feel the insufficient nature of the proof. Conclusions requiring for their authority a long average of cases, carefully selected, and freed from the many chances of error or ambiguity, are often promulgated and received upon grounds barely sufficient to warrant a repetition of the trials which first suggested them. No science, unhappily, has abounded more in false statements and partial inferences; each usurping a place, for the time, in popular esteem; and each sanctioned by credulity, even where most dangerous in application to practice. During the last twenty years, omitting all lesser instances, I have known the rise and decline of five or six fashions in medical doctrine, or treatment; some of them affecting the name of systems, and all deriving too much support from credulity, or other causes, even among medical men themselves."†

The principal cause of these contradictions in medical testimony under the present system of practice it is not difficult to understand. A witness who has expressed his judgment on facts and views submitted to him by interested parties, is, in general, so far committed in their favor as to be unable to give an unbiassed opinion in the case. The remedy seems simple and practicable, but though long ago suggested it has never yet been tried. It is to have experts of experience and ability in their several departments appointed by commis-

sioners or by the court, and their salaries fixed by judicial or legislative authority and paid out of the public treasury. In this way experts, being free from the influence of interested parties, would have little or no temptation to give one-sided opinions. These suggestions, which have been urged by Taylor, Redfield and Ray, will, we trust, be carried out at no distant day, and we understand that a plan for a commission of this kind will soon be laid before the Legislature of this State. But so long as the present system remains in force, it is the duty of the medical expert to take care that the peculiar relation in which he stands towards his employers do not warp his judgment and prevent him from giving an impartial and unbiassed opinion in the case.

His opinion, it is important to remember, should be based exclusively on the medical facts of the case. He is not entitled to draw inferences of fact from the evidence, for this would require him to pass upon the truth of the testimony, which is a question for the jury; but he may be asked his opinion on a known or hypothetical state of facts. Thus, where the facts are doubtful, and remain to be found by the jury, it has been held improper to ask an expert who has heard the evidence, what is his opinion upon the case on trial; though he may be asked his opinion on a similar case hypothetically stated.\* On the same principle, the opinion of a medical man that a particular act for which a prisoner was tried was an act of insanity, has been ruled inadmissible.† If the facts assumed in a hypothetical question propounded to an expert are not themselves proved substantially, the answer to such question is not to be considered by the jury.‡ In a recent Massachusetts case§ it was held that there is no established form for questions to experts in this Commonwealth, and any question may be proper which will elicit their opinions as to the matters of science or skill which are in controversy, and at the same time exclude their opinion as to the effect of the evidence in establishing controverted facts. "Questions adapted to this end," said Mr. Justice Chapman in delivering the opinion of the Court, "may be in a great variety of forms. If they require the witness to draw a conclusion of fact, they should be excluded. But where the facts stated are not compli-

\* *Sills v. Brown*, 9 Carrington & Payne, 601. *McNaughton's Case*, 10 Clark & Finnelly, 200. *Woodbury v. Obeir*, 7 Gray, 467. *United States v. McGlue*, 1 Curtis, C. C. 1.

† *Rex v. Wright, Russell & Ryan*, 456.

‡ *Hovey v. Chase*, 52 Maine, 301.

§ *Hunt v. Lowell Gas Light Co.*, 8 Allen, 169.

\* Chapters on Mental Physiology, pp. 1-3.

† The conflict of opinion among medical witnesses has lately been deplored by the highest medical and legal authorities—Winslow, Mayo, Marc, and Mittermaier—Wharton and Stille, *Med. Jur.*, p. 71.

cated, and the evidence is not contradictory, and the terms of the question require the witness to assume that the facts stated are true, he is not required to draw a conclusion of fact." In a very late case in this State,\* a question proposed to an expert was excluded because it sought to establish an historical fact, under the guise of a scientific opinion. It is a well-settled rule of law that witnesses cannot state their views on matters of legal or moral obligation, nor on the manner in which other persons would probably be influenced, if the parties acted in one way rather than in another. Therefore the opinions of medical practitioners upon the question whether a certain physician had honorably and faithfully discharged his duty to his medical brethren, have been rejected.† But this rule does not prevent a medical man from testifying to a fact derived from his own observation, from which another medical man's incapacity or unfaithfulness might be inferred. Thus, in an action to recover damages for a personal injury, a physician was allowed in a recent case‡ to testify what had been another physician's previous treatment of his patient, what effect it had upon him, and whether or not he saw any evidence that the patient had been injured by such treatment. It was held, in the same case, that the statement of a patient to his physician as to the character and seat of his sensations, made for the purpose of receiving medical advice, are competent evidence in his favor in an action to recover damages for a personal injury, even though such statements were not made till after the action was brought.§ This is an exception to that rule of law which confines expressions of the bodily or mental feelings of a party, to prove the existence of such feelings to those made at the time. In both of these cases the admission of this testimony is contrary to the general principle of evidence which excludes hearsay, because it cannot be subjected to the ordeal of a cross-examination to test its truth. It is admitted, however, from the necessity of the case, as this is the only way by which the condition of a patient can be made known to his physician, who has a fair opportunity of ascertaining its correctness by observation, and it is for the interest of patients to tell the truth under these cir-

cumstances. And as the opinion of the physician would be competent evidence in such a case, it would be absurd to keep from the jury the reasons for his opinion, as they would then be unable to determine its soundness. But an expert will not be allowed to express an opinion upon the value of the opinions of other witnesses in the case. It is not his province or duty to make such comparisons.\* As has been previously remarked, the opinion of an expert is only admissible upon questions of science or skill, and is not competent in a question respecting which persons of ordinary intelligence can as well draw conclusions.† Thus, where a corpse was found partially burned, and certain portions of the body covered with loose clothing were not burned, the inference of a medical man that the person must have been dead before the fire broke out, as otherwise the covering would have been disturbed, was held inadmissible.‡ And in a recent case in Alabama, it was held that a person having no veterinary or medical knowledge is competent to testify, upon the trial of an indictment for wilfully injuring a mule, to the damage done to a mule by its receiving a gun-shot wound.§ Cases have often occurred where a medical witness has expressed opinions out of court in regard to the nature or extent of his patient's injuries, or in reference to other matters affecting the question of damages and the liability of other parties to pay them. For the purpose of showing his bias or partial feeling in order to discredit his testimony, it is competent to show by other witnesses that he has expressed such an opinion upon the merits and probable result of the case.||

The question has often been discussed how far the expert in forming his opinions should rely upon the authority of others, and how much upon his personal experience. Without considering the metaphysical refinements about the nature and sources of Belief which have been ingeniously presented by philosophers, it is clear that personal experience can form but a small part of the available knowledge of the skilled witness, for the results of his own observation and reflection are inappreciable compared with the stores of information which have been accumulated by the labors of others. The true test would seem to be, that whatever in the writings of his profes-

\* McMahon v. Tyng, 14 Allen, 171.

† Greenleaf on Evidence, § 411.

‡ Barber v. Merriam, 11 Allen, 322.

§ But the narration by a patient to his physician of the cause of injuries received several months previously is not admissible as evidence of that cause. Chapin v. Inhabitants of Marlborough, 9 Gray, 241.

\* Haverhill Loan and Fund Association v. Cronin, 4 Allen, 141.

† Hovey v. Sawyer, 5 Allen, 536.

‡ People v. Bodine, 1 Denio, 281.

§ Johnson v. State, 37 Alabama, 457.

|| O'Neill v. City of Lowell, 6 Allen, 110.

sional brethren so far commends itself to the judgment of the witness as to be assimilated by his mind, and incorporated with his own knowledge, is a legitimate ground for the expression of an opinion, but those ideas which have not been thus digested and blended into a complete whole, but are merely remembered as having been uttered by authorities, however eminent, are not the proper basis for such an opinion. The man who, without being an extensive reader, has reflected deeply on what he has observed and read, and is really master of his information, is a far more trustworthy witness than he who staggers under a load of erudition which only encumbers and confuses his mind. "Beware of the man of one book," says the proverb, and the man of many books sometimes deserves to be the object of similar distrust. To make study subsidiary to observation, to read, not to contradict and confute, nor to believe and take for granted, but to weigh and consider, was justly regarded by Lord Bacon as the perfection of nature and experience.

The medical expert should not only make himself thoroughly familiar with the subject on which his opinion is expected, but should pay the closest attention to the evidence given by the other witnesses in the case. Great care and discrimination are necessary in this respect, for the hypothetical case submitted to him will often be so skilfully framed as to present an entirely different aspect to the jury from the real case which it partially resembles, and the incautious witness may be led into admissions which he never intended to make. In meeting the tactics with which a wary and circumspect lawyer may endeavor to perplex and disconcert him, the witness will need a large stock of coolness and patience. The opposing counsel, in questioning him closely as to the grounds of his opinions, his general professional qualifications, or special experience in regard to the question at issue, may try to involve him in contradictions, and in this wordy warfare his good temper and good judgment will be severely tested. He should bear in mind that although the object of the advocate may be forensic victory, that of the witness should be the discovery of truth. The code of legal ethics justifies the former in eliciting only those facts and opinions which favor his side of the case, but the oath of the latter requires him to tell the whole truth. The *suppressio veri* is as flagrant a violation of that oath as the *suggestio falsi*. After his examination by counsel, opportunity will always be given to the witness to

disclose material facts not brought out by previous inquiry. And in any event the rights of the parties are liable to be jeopardized by a witness who forgets the interests of truth in his desire to make a display of controversial ability. The triumph over opposing counsel is dearly purchased at the sacrifice of substantial justice. A disposition to give his testimony with impartiality and fairness will have much greater influence with the jury than the utmost skill of fence. It sometimes happens that a witness, instead of replying to the question put to him, makes a general answer by way of anticipating future interrogatories, or indulges in a dissertation on the general subject, and the result is a confusion of ideas and a protracted cross-examination. Where several questions are compressed into one, the witness is in danger of giving an answer to the particular question which happens to fix his attention, instead of asking to have the inquiries made separately, as he has a perfect right to do. The consequence is that the counsel for the other side makes the answer appear responsive to all the questions thus compressed together, or dwells upon its inapplicability in this respect, so that the views of the witness are misrepresented, when it is too late to change his testimony. In giving his opinion, care should be taken by the expert to avoid the two extremes of hesitancy and dogmatism. Unwillingness to express an opinion where life or reputation are concerned has led many a witness, in his anxiety not to make a mistake, into errors greater than those he feared. Abernethy was once sharply reproved for refusing to give his opinion in a case, and was told by the judge, "You were called for the purpose of giving an opinion." In many important cases opinions form the evidence on which the issue turns, and they are frequently more trustworthy than facts, which are often inaccurately observed or incorrectly reported. That eminent medical philosopher, William Cullen, observes that there are more false facts in the world than false hypotheses to explain them—a remark which recent scientific and historical research has abundantly verified. A conscientious expert need have no harassing anxiety about the correctness or the consequences of his opinion after he has taken all reasonable care to ensure its accuracy, for on these points the jury are to decide. The witness may be mistaken about a fact depending on the evidence of the senses, but about the fact of his entertaining an opinion, no matter whether that opinion is

right or wrong, he cannot be mistaken. This is all that the law demands of him, and in giving it, any responsibility for the effect which it may have upon the lives or fortunes of others is shifted from him to the paramount authority which has required its expression.

The witness should not reply to a question until he clearly understands it, and should then give his answer in perspicuous and accurate language. Undue haste in expressing an opinion before the facts on which it is founded are thoroughly comprehended will involve him in contradictions and inconsistencies; and the same result will follow want of precision in the use of words. As the court and jury can have no other evidence of the views of the witness than is afforded by his own language, which is the natural medium for their expression, they will be justified in supposing that he means what he says, and it is his own fault if he conveys a different impression. And as the lawyers will naturally turn all the shortcomings of a witness to the advantage of their own clients, he cannot complain if the discrepancies of his testimony are held up to the jury in an unfavorable light. While care should be taken by the witness to avoid a flow of irresponsible, unmeaning, and irrelevant testimony, he should also be on his guard against a suspicious reticence. He will certainly bring discredit on himself and the cause he represents, if important and manifest parts of the truth, which ought to have been given in his evidence-in-chief, are wrung from him by a cross-examination. This is an example of what Paris and Fonblanque call "costive retention," which is a distressing infirmity of some witnesses. The evidence thus forced from an unwilling witness will naturally have much weight with the jury in favor of the other side, and the Law allows great latitude in the examination of a person who shows a disposition to evade reasonable inquiry.

Medical writers and practitioners have often complained that they are not permitted to read professional treatises to the jury in support of their opinions, and the reasons for the exclusion of this kind of evidence have sometimes been misrepresented and misunderstood. It has been vehemently urged by these writers that as medical testimony altogether is little else than a reference to authority, the mere fact that the authors of these books cannot be placed under oath, should not prevent their writings from being received in evidence, for it is said that the act of publication argues as solemn a sense of responsibility as any oath

could impose or enforce. "Would Paris and Fonblanque," it is asked, "be better authority if they swore to it before the twelve judges"? It is also maintained that as lawyers are allowed to quote legal treatises, there is no good reason why medical men should not be entitled to a similar privilege. Dr. Beck, in his valuable work on Medical Jurisprudence, has inferred from the fact that medical books have often been referred to without objection in trials in this country, that the rule of exclusion does not prevail here,\* but he is undoubtedly mistaken if he supposes that their admission, which was conceded as a privilege, could be enforced as a right. Whenever objection has been made, they have generally been excluded.† The truth is that the rule of exclusion is no more rigid in regard to medical than to legal works. The latter are often read in argument to inform the mind of the court, but never as evidence. The decisions of the Supreme Court of a State or of the United States are binding in certain cases upon inferior tribunals, and are therefore cited for that purpose, but other reports and elementary works do not have this controlling influence. Practically the exclusion of medical books works no disadvantage to the expert, for he is allowed to give an opinion and the reasons for it, which may be to some extent founded on books as a part of his general know-

\* In the 11th edition of this work, revised by Dr. Gilman, these remarks have been omitted.

† In England the rule of exclusion has long prevailed. In the case of *Collier v. Simpson*, 5 Carrington & Payne, 73, the Court refused to allow the works of Sir Astley Cooper and Dr. Merriman to be introduced in evidence. Chief Justice Tindal then said:—"I do not think that the books themselves can be read, but I do not see any objection to your asking Sir Henry Hallford his judgment, and the grounds of it, which may in some degree be founded on books as a part of his general knowledge." At the trial of Rogers for murder, in this State, in 1844, Chief Justice Shaw presiding, medical books were admitted by the Supreme Court, but in subsequent cases the same Court has excluded them. In *Commonwealth v. Wilson*, 1 Gray, 337, which was also a murder trial, the defence was insanity. It was there decided that neither books of established reputation on the subject of insanity, whether written by medical men or lawyers, nor statistics of the increase of insanity, as stated by the court or counsel on the trial of another case, can be read to the jury. The grounds of this decision are thus stated in the opinion of the Court delivered by Chief Justice Shaw:—"Facts or opinions on the subject of insanity, as on any other subject, cannot be laid before the jury except by the testimony under oath of persons skilled in such matters. Whether stated in the language of the court or of the counsel in a former case, or cited from the works of legal or medical writers, they are still statements of fact, and must be proved on oath. The opinion of a lawyer on such a question of fact is entitled to no more weight than that of any other person not an expert. The principles governing the admissibility of such evidence have been fully considered by this Court since the trial of Rogers; and the more recent English authorities are against the admission of such evidence." See also *Washburn v. Cuddihy*, 8 Gray, 430. Contra, *Bowman v. Woods*, 1 Iowa, 441.

ledge. It is obvious that the court and jury seeking enlightenment on a difficult subject, can be better informed by an intelligent physician illustrating under cross-examination the facts and principles pertinent to the case, than by a learned authority whose general doctrines are not easily applied by the unprofessional mind to the particular question at issue. Medical science is progressive, and the author quoted may have changed his views since his work was written, or been left behind by the advancing tide of thought and knowledge. Then, too, he may have written in support of a theory, rather than in the interests of truth, and his work may thus lack the impartiality which can alone entitle it to the confidence of the jury. In thus preferring the opinion of an intelligent medical man who is presumed to have mastered the question at issue, and to be familiar with the latest phases of professional thought, as derived from study and reflection, aided by the results of his personal experience, the Law pays a higher compliment to the witness than if it permitted him to confuse the court and jury by the citation of what would often prove to be unintelligible, and therefore unsatisfactory authorities. But aside from all this, every party to an action has the right to have the evidence against him delivered under the sanction of an oath, and to have the opportunity of sifting the opinions of a witness, and testing their soundness by cross-examination, and the absence of these two conditions in the case of medical books is sufficient reason for their exclusion as evidence.

Another question about which medical-legal writers are at variance, relates to those confidential communications of the patient to his physician which the Law may require the latter to disclose on the witness-stand.\* Here, it is said, is an unjust discrimination between the lawyer and the medical man,

for the former is not compelled to reveal communications made to him by his client. But the reason for the distinction does not rest, as has been erroneously supposed, upon favoritism for the lawyer, but is based on a regard for the administration of justice. Unless such a protection were extended to counsel, the business of the courts could not go on, for no man would dare to intrust the enforcement of his claims to a legal adviser, and thus the interests of society would suffer. But it is obvious that the withholding of medical secrets may be equally detrimental in this respect, for the physician or surgeon is frequently made the depository of information seriously affecting the rights of others. In disclosing these communications by order of court, he is clearly violating no confidence, for he yields to a paramount authority which has the legal right and power to enforce its decree. This view of the case, which has been well expressed by Dr. John Gordon Smith in his admirable *Analysis of Medical Evidence*, is sustained by Taylor, Elwell, and other authorities on Medical Jurisprudence. No medical man is legally bound to reveal communications of this character, unless required to by the court, and it would ordinarily be regarded as a breach of professional propriety to make a voluntary disclosure of them. Cases may arise, of course, where the promotion of justice or the detection of crime might lead the physician to adopt a contrary course; and the conduct of Dr. Mott, in furnishing the police with a description of the burglar to whom he had given surgical treatment, will readily recur to the profession as one which occasioned considerable discussion at the time of its occurrence.\* In some States there are statutes which exempt the medical man from revealing professional secrets on the witness stand, but the rule of the common law still prevails in most of the United States.

The most difficult questions with which judicial tribunals have to deal are those of mental unsoundness, and there can be little doubt that the frequency and success with which this defence has been put forward to shield the criminal from punishment has created among dispassionate observers considerable distrust of this kind of evidence. But it is obvious that the greatest difficulties encountered by the medical expert on insanity are inherent in the subject itself. In the ordinary cases which require the investigation of medical

\* This important point was decided in the great case of the Duchess of Kingston, 11 Hargrave's State Trials, 243, 20 Howell's State Trials, 643. Lord Mansfield said, on that occasion, "If a medical man was voluntarily to reveal these secrets, to be sure he would be guilty of a breach of honor and of great indiscretion; but to give that information which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever." In *Greenough v. Gaskell*, 1 Mylne & Keen, 102, Lord Chancellor Brougham has clearly illustrated the reason for the exception to the rule in favor of attorneys and counsel. This exemption, which Chief Justice Best and Lord Tenterden regarded as a great anomaly in the law, and of which Chief Justice Shaw said, "that having a tendency to prevent the full disclosure of the truth it ought to be contracted strictly" (*Post v. Hall*, 12 Pickering, 98), is, as Lord Eldon remarked, a privilege not personal to the attorney, but is designed for the protection of the client. The subject is discussed with great ability by Vice Chancellor Bruce in *Pearse v. Pearse*, 11 Jurist, 52; 1 De Gex & Smale, 25.

\* Elwell on Malpractice and Medical Evidence, p. 330.



men there are data by which the soundness of opinions can be tested, and the courts can safely depend on the deductions of the skilled witness. Such are the abnormal conditions which a *post-mortem* examination reveals to the eye of the chemist, or the injuries whose causes and results are explicable by the skill of the surgeon. But when from these purely physical appearances we turn to the manifestations of mental disease, we pass into the regions of uncertainty. "As medico-legal witnesses," says Forbes Winslow, "we have to deal with phenomena, of the essence or intimate nature of which we know absolutely, positively nothing."\* "There is no mode," he observes, "by which we can penetrate behind the curtain, or tear aside the veil that divides the material from the immaterial—mind from matter; there is no possibility of our obtaining access to those mysterious chambers where the spiritual portion of our nature is elaborated; we have no guage, no square rule, by which we can ascertain in all cases with any approach to chemical or mathematical accuracy, an accurate idea of the actual condition of the mind, when apparently under a cloud. In the elucidation of these points we are, in a great measure, left to our own unaided mental sense—to the uncertain guidance of our deceptive experience, and, alas! often fallible judgment." To decide what degree of deviation from healthy mental life constitutes that condition in which a person is irresponsible for his actions; to trace the shadowy boundaries which separate the strange eccentricity that may color his ordinary conduct from the graver unsoundness which will invalidate his will; the natural feebleness of the faculties in old age from the insidious ravages of senile dementia; to tell where delusion ends and depravity begins, to distinguish between the craftiness of the criminal and the cunning of the lunatic, the murderous passions of the civilized ruffian and the homicidal mania of the victim of cerebral disease, is a task which, as it often baffles the skill of the masters of the science of insanity, may well perplex the judgment of courts and juries.

The objects and limits of this article will only permit us to glance at a single aspect of this many-sided subject—viz., the position of the courts in reference to the evi-

dence admissible to prove the existence of mental unsoundness. And here we find the authorities conflicting. As we have seen, recent Massachusetts decisions restrict expressions of opinion on this subject to professional experts, allowing in one case, by a decision not unanimous, a family physician, whose opportunities of observing the testator had been very great, to give an opinion on his sanity; and only permitting other witnesses, among whom are physicians in general practice, to testify to facts. The same doctrine has been held by the Court of Appeals, the highest judicial tribunal in New York, but by a divided bench, in which three judges out of eight dissented, among the former being Mr. Justice Denio, while the Supreme Court maintained, till overruled, a contrary opinion. In Texas the same view prevails. This is also the rule in the common law courts of England, while the ecclesiastical courts adopt an opposite one. But in Connecticut, Vermont, Pennsylvania, Maryland, Ohio, Missouri, Indiana, North Carolina, Georgia, Tennessee and Mississippi, unprofessional persons are permitted to express opinions on the sanity of individuals with whom they are familiarly acquainted. The same doctrine is recognized by the U. S. Circuit Court in New Jersey.\* In most of these States it is held requisite that the witness should state the facts on which his opinion is based, but in Georgia a medical witness, in contradistinction from other witnesses, may express an opinion upon the sanity of a testator, whether founded upon facts within his own knowledge or testified to by others. It would seem, on principle, that the rule in Massachusetts and New York is the correct one, for experts, who alone can give opinions on questions of science or skill, are, as Bouvier remarks, and the term implies, "persons instructed by experience," and ordinary physicians can hardly be said to have experience enough to qualify them to testify as such. As the determination of the question of insanity involves such momentous consequences, the knowledge possessed by the expert ought to be that which special study and practical training alone can give. The characteristic manifestations, often delicate and shadowy, which distinguish normal from abnormal mental action, can be detected only by the master of the science; they are lost upon the uninstructed or casual

\* "Do we not in sober truth," says a profound inquirer into the philosophy of insanity, "learn more of its real causation from a tragedy like *LEAR* than from all that has yet been written thereupon in the guise of science?"—*The Philosophy and Pathology of the Mind*, by Henry Maudsley, London, 1867, p. 198.

\* See the cases collected in Redfield on Wills, 2d ed., part i. pp. 140-146; Wharton and Stille on Medical Jurisprudence, pp. 76-77. Bishop on Criminal Procedure, vol. i. ch. xxxiii.

observer. Even with the disadvantage with which the expert usually has to contend, of giving his opinion on facts and symptoms observed by others, his judgment would ordinarily be better than that of persons of no special information or experience, to whom these indications would be misleading and unintelligible. The legal anomaly in this regard, of admitting subscribing witnesses to a will to testify to the testator's sanity, which is almost universally allowed, may proceed on the ground that the testator has selected them, or that when the statute has defined the requisites of such witnesses, it is not for the courts to nullify its intent by declaring them incompetent to give evidence in regard to matters material to the issue.\*

But while adherence to legal principles would seem to demand the exclusion of the opinions of all but persons skilled in the treatment of insanity, the small number of such persons, and the difficulty of procuring their attendance, have led many courts to admit the opinions of physicians in general practice. And as there is no scientific standard, no medical test by which the character of an act can be determined, in reference to its author's capacity or responsibility, that question can only be solved by a consideration of the circumstances of his life, and an inquiry into the history and condition of his family. In this point of view the testimony of unprofessional persons who have had constant opportunities of observing his conduct in his social or business relations, where, although the particular facts may have been forgotten, the impression produced by them is vividly remembered, must be of considerable weight in determining the question of his sanity. Though such persons would naturally have less knowledge on the subject of insanity than ordinary physicians, they could at all events be free from the intellectual infirmities which afflict the specialist in this difficult department of psychological inquiry, and which, as a distinguished jurist has remarked, tend to enlargement of jurisdiction. Whether the opinions of such observers, who can report the facts on which their judgment is based, so that the court and jury can test its theoretical value and experimental soundness, are not worthy to be received with those of medical men who may never have observed the alleged insane person, and who are called upon by interested parties to express an opinion upon facts and symptoms which must necessarily be imperfectly re-

ported, or whose observation is limited to an examination of him under circumstances seldom favorable to a correct diagnosis, is a question, which, as we have seen, most courts have decided in the affirmative. But the point is one on which medical and legal writers are equally at variance. Brodie says: "It is a great mistake to suppose that this is a question that can be determined only by medical practitioners. Any one of plain, common sense, and having a fair knowledge of human nature, who will give it due consideration, is competent to form an opinion on it; and it belongs fully as much to those whose office it is to administer the law as it does to the medical profession."\* Elwell, in his work on Malpractice and Medical Evidence,† devotes a chapter to this subject, in which he advocates the admission of the opinions of laymen as evidence upon alleged insanity in connection with those of the learned and experienced, while Ray is in favor of restricting the expression of opinion in judicial proceedings to persons skilled in the treatment of mental disease.‡ Orfila observes: "C'est aux lumieres et à la probité des médecins que doit être *exclusivement* réservé le droit de juger chaque espèce d'aliénation mentale, et de donner aux tribunaux les seuls éléments sur lesquels puissent être raisonnablement fondés des jugemens équitables."§ Redfield, from the stand-point of judicial experience, while depreciating the testimony of medical experts under the present system, agrees with Taylor and Ray in recommending the appointment by disinterested authorities of a board of medical experts to assist the court and jury in determining questions of insanity, &c.|| "Although the opinions of experts," says this distinguished jurist, "are generally regarded as entitled to more weight and consideration than those of other witnesses, upon questions of mental soundness and capacity, yet it has been held, the jury are to give them only such weight, in deciding the case upon the whole testimony, as they think them fairly entitled to have. And when we consider the conflicting character of testimony coming from experts; and often its one-sided and partisan character; and above all, the tendency of the most mature and well-balanced minds, to run into the most incomprehensible theorizing and unfounded dogmatism, from the ex-

\* Mind and Matter; or Physiological Inquiries, 105.

† Chapter xxx.

‡ Medical Jurisprudence of Insanity, 4th ed., § 45.

§ Traité de Médecine Légale, tome I. p. 360, Paris, 1818. See also Briand, Manuel de Médecine Légale, p. 542. Paris, 1852.

|| Redfield on Wills, 2d ed., part i. pp. 155-156.

\* See Greenleaf on Evidence, § 440; per Shaw, C. J. Commonwealth v. Wilson, 339.

clusive devotion of study to one subject, and that of a mysterious and occult character, we cannot much wonder that some of the wisest and most prudent men of the age are beginning to feel that the testimony of experts is too often becoming, in practice, but an ingenious device in the hands of unscrupulous men, to stifle justice, and vindicate the most high-handed crime."\*

We have dwelt in this article on the rights and duties of experts because, as has been said by a competent authority, the testimony of medical men, as such, is purely of this character. The great responsibility resting on this class of witnesses will be apparent when we consider that in the most intricate and important cases, juries are almost helplessly dependent on their assistance. In consequence, however, of the mysterious and recondite nature of the subjects which they are often required to elucidate, the soundness of their mental processes and the correctness of their conclusions cannot always be so effectively tested by legal examination as to make the merits of the case clear to the twelve plain men who are to determine it. It is proverbially hard to decide when doctors disagree, and when two contradictory theories are advanced by eminent medical men, each of which is carefully elaborated and supported by great learning, experience and ability, it is not strange that common sense and judicial acumen should be equally at fault, and that the doubts which often perplex the panel should sometimes bcfog the bench. The fact that notwithstanding the difficulties of the subjects discussed by experts, and the temptations to which they are naturally exposed, their moral and intellectual honesty must to a great extent be taken upon trust, renders their testimony less clear and decisive than that of witnesses who are affected by no such disturbing causes, and whose evidence being only the report of the senses, can be subjected to the most rigid and searching scrutiny. Then, too, the facts which the expert is expected to elucidate are generally derived not from his own experience, but from the testimony of persons who are either incompetent to observe closely, or are unable to report with accuracy the results of their observations. Thus, the opinion of the expert being based on defective premises, will be itself defective. And this is an important cause of the weakness and insufficiency of this kind of evidence. Moreover, being called by an interested party to express his views in re-

lation to a question arising in a case, it is almost impossible for him to preserve a rigid impartiality. It is obvious, from its subtle and often unconscious influence upon the mind, that bias is more likely to color a witness's opinions than to distort his statements of fact, and in weighing the testimony of biassed witnesses a distinction has been observed. "Such a witness," it is said, "is to be distrusted when he speaks to matters of opinion; but in matters of fact, his testimony is to receive a degree of credit in proportion to the probability of the transaction, the absence or extent of contradictory proof and the general tone of his evidence."\*

The ordeal through which the medical expert must pass in the course of a protracted examination will test severely his talents and acquirements, the evenness of his temper, as well as the soundness of his judgment. At such a time he is thrown upon his own resources, with no opportunity to refer to his books, to consult his professional brethren, or to take much time for reflection. Especially is he likely to realize that the strongest opinion may lose something of its vitality when it is subjected to hostile criticism, and the grounds of it are rigidly scrutinized, and the dogmatist may find that his cherished theory, instead of being a fresh and living conviction, is only a petrified prejudice. But the master of his profession who approaches the examination of the question at issue in the spirit of fairness and impartiality, will have the satisfaction of knowing that his learning and ability are appreciated by the court and jury, and are of essential service in the administration of justice; that his own faculties are sharpened by the experience, and, in view of these facts, he will cheerfully endure the annoyance which is inseparable from forensic discussion.

DR. LETHBY says it is highly probable that the largest amount of muscular force is derived from the hydrocarbons of our food; not that the nitrogenous matters of it may not also be a source of power; but there is no necessity, as Liebig supposes, for their being previously constructed into tissue. The experiments of Mr. Savory, in fact, show that rats can live and be in health for weeks on a purely nitrogenous diet, and it is nearly certain that under these circumstances the nitrogenous matters are mostly oxidized without entering into the composition of tissue.—*Medical and Surgical Reporter*.

\* Redfield on Wills, 2d ed., part i. p. 155.

\* Greenleaf on Evidence, 9th ed., vol. i. § 410 a.

# Medical and Surgical Journal.

BOSTON: THURSDAY, JULY 29, 1869.

## RIGHTS AND DUTIES OF MEDICAL EXPERTS.

THE communication on "Medical Evidence," with which we have the privilege, as a personal favor accorded to us, of occupying a large share of this number of the JOURNAL, will be welcomed by our readers as a tribute of kindly counsel and instruction from an able member of a sister profession. To those who have no time for any but medical reading, we would say that the author of the article is well and favorably known in literary circles as a contributor to various publications.

As a compliment to, and the complement of, the legal advice bestowed on us to-day, we have transcribed for these columns that portion of the unpublished Address of Dr. E. H. Clarke (from which we have before quoted) that relates to pretty much the same subject as that treated by Mr. Young.

\* \* \* \* Let us leave these abstractions and lofty ideals—would they were oftener before us—and look at some of the practical matters that grow out of human attempts to realize them, and with which you are concerned because you are physicians. In the court-room, for example, where justice is sought and secured, physicians are often brought into intimate relations with lawyers. There law and medicine stand side by side. There meet those who are trained to investigate the truth in very different ways.

I know that lawyers are sometimes accused of prevarication, subterfuge and chicanery, that have pointed many a sarcasm; of following the letter which kills and denying the spirit that quickens; of trying to weight the scales of Justice, till good men have doubted whether law and right were the same. And so physicians have been charged with pretension, mystery, charlatanism and deceit, that would render them, like Cicero's haruspices, ashamed to look each other in the face. But this is only saying that there are pettifoggers in law as well as quacks in medicine. But besides all these, I rejoice in the belief that there are men, and not a few of them, who are in the highest sense worthy of the name of lawyers and physicians, and who in sepa-

rate ways labor for a common and a noble end. It is of these that I am speaking. Therefore, whenever you enter a court room you will never forget, however unworthy may be the actors and however imperfect may be the machinery, that it is the place where Justice sits and truth is sought.

None enter the court-room who have a more delicate and responsible duty to perform than the medical expert. Questions of sanity, of health and disease, of testamentary bequests, of the character and effects of injuries and maladies and the like, are often submitted to him for advice and sometimes for decision. Recollecting Blackstone's definition of law, and the fundamental principle of your science, it is plain that your only duty, as a medical expert, is to aid the discovery of truth. Your position is not that of an advocate or a partizan. It is a judicial one. When summoned into court never forget this, and so never take sides with either of the contending parties. Your party is that of justice and truth. As a witness you will testify, like other witnesses, only to what has come under your personal observation. As an expert you are expected to weigh evidence, draw inferences, judge of testimony and form and express opinions. When doing this, you should follow the methods of observation and investigation that you have learned in the laboratory and the hospital. These methods are not the same as the lawyer's, because you do not deal with the same sort of facts that he does, but they are as truth-giving as his.

Unfortunately, under the present organization of our courts, medical and other experts are summoned and paid by one of the contending parties. It would be better if they were appointed by the judges, on the nomination of the counsel, and paid by the contestants or the State; or if in some other way the temptation of an expert to become the advocate of the party who employs him could be removed. Even doctors have mortal weaknesses, and it is not wise to tempt them too much. But you must take things as they are. And as they are, when summoned to court as an expert, you will be summoned by one of the contending parties, paid by that party, and expected to testify in such a way as to enhance the chance of that party's winning. This does not alter one particle what I have previously said. Although you may be summoned by one side and paid by one side, and importuned by counsel to advocate that side, yet you do not belong to that side, nor to any side, save truth's. The

moment you take the witness-stand you discard all partnership.

The dread which medical men are apt to entertain of a court-room arises, not so much from an interruption of their business or an unwillingness to testify, as from a fear of the cross-examination. But this is an unworthy fear. Recollect the noble position of an expert as the impartial interpreter of the truth, and you will have no such dread. Falsehood and pretension, not truth and honesty, dread the trial of a cross-examination. Indeed, the more acute and searching a cross-examination is, the more will it bring into clear relief the truth of your testimony. Never pretend to more than you know. Express your opinions simply and briefly. When you are in doubt, say you are in doubt. When you are ignorant, dare to say "I do not know." When you know, give utterance to the truth. Do this, and no cross-examination will ever trouble you. Simple truthfulness is more than a match for the astutest cross-examiner; and a pettifogger fears the truth more than he does the devil.

It is well to recollect, in this connection, that when on the witness-stand, all statements should be made in the simplest language. Technical terms should be avoided as far as possible. Sounding and learned phrases are so apt to be the cloaks of pretension that they render the lawyers suspicious. To call a sore throat, as I once heard it called, a follicular inflammation of the posterior pharyngeal mucous membrane, might dazzle a jury by excess of light, but would not contribute to your comfort during a cross-examination. I know that lawyers are not infrequently accused by medical experts of being ancivil, over-bearing and strategical in their examinations. When they are so, it is generally as much the fault of the expert as of the lawyer. If the former is honest and intelligible, the latter will be civil. No lawyer will injure his case by crowding or brow-beating honesty and truth. He will no more run a tilt against them than a dissector would thrust his scalpel against a bone.

While the medical expert has delicate and responsible duties to perform, the character of which I have imperfectly indicated, it is not to be forgotten that he enjoys certain privileges or rights, which are not to be invaded. A knowledge of these may serve to protect you against frivolous or undue encroachments on your time. One of these is the following: When any person, physician or otherwise, is duly summoned as a witness, he is obliged to re-

spond to the summons and appear when the case is tried. No excuse, except absolute inability, is accepted by the court. An expert, like an ordinary witness, is obliged to appear when summoned, and to answer whatever questions are put to him. But the court does not compel him to do more than this. It does not compel him to acquire any additional information in order to qualify himself as an expert. It does not even compel him to hear the evidence. If he chooses to do so, he may remain outside of the court-room, till he is called to the witness-stand. He is not obliged to make any sort of preparation. If, therefore, you do not wish to appear as an expert (if you have reason to believe that you will be underpaid), you need only state to the summoning party, that you shall decline to make the necessary preparation, and you will not be called. An unwilling expert is an undesirable witness. But this and similar matters belong to the details of the administration of the law, and I have no time to dwell upon them. The one thing which I wish to impress upon you, and which I trust you will never forget, is that when you step upon the witness-stand as an expert, you are to lay aside all partisanship and prejudice. Whatever may be the opinion you have formed from the facts presented to you, that opinion and the whole of it you are bound to express, whether it makes for or against one side or the other. You are to stand up, not as an advocate for the side that pays you, but solely as the witness, advocate and interpreter of the truth.

CRITICISM.—We have been told that the editorial pen of Mr. Jefferson Brick was the *shears*. But the judicious clipping of extracts involves some discrimination, and the skimming of many pages. An easier task was that of the *redacteur* of a medical journal, who made his "leaders" out of his book notices, which presented a cheerful uniformity of laudation. Some writers would seem to expect that their lucubrations should receive this sort of bibliographical review. To comply with their demands and adopt their views into the general practice would be to abolish criticism.

When one commits his thoughts to print, he may still claim their ownership—he continues to hold the "fee" of them. But they have become public property to the

extent that others may have the use of them, and may freely investigate their soundness. Whatever is published, is by the implication of usage, as the etymology of the term suggests, offered to the public for the most searching scrutiny, and for the free and full expression of the results of examination. If the reviewer must say that everything he notices is white, though it be black, that it is good, when it, in reality, is bad, that it is true, however inaccurate inspection may prove it, then, bidding farewell to criticism, we might treat all book-notices as mere advertisements, and demand payment for them as such.

On the other hand, as the wayfarer, though he may concern himself with the state of the highway, has no right to enter the domicile of the abutter, and ridicule his domestic arrangements, or condemn his mode of transacting business, so the reviewer is bound by all the rules of comity and propriety to confine his remarks to the literary or scientific performance in hand; and has no shield of position to shelter himself behind, in order to attack personally the author whose work he is describing, or to abuse *him* in any capacity. He may cut to pieces, if he can, the book or article offered for dissection, but must always keep diplomatic courtesy on his side.

These remarks are suggested by the controversy which has lately been rife between Dr. E. S. Gaillard, of the *Richmond and Louisville Medical Journal*, and Dr. T. S. Bell. The former, a few weeks since, reviewed a paper written by the latter. The review was severe, but as we read it, quite parliamentary, so to speak, both in its language and scope. The latter writer, in a reply, appears to us to attack Dr. Gaillard. Dr. G. prints a rejoinder as a supplement to the regular pages of his *Journal*, in which response he seems to us to keep still within the bounds of dignified controversy.

THE CHILDREN'S HOSPITAL. *Mr. Editor*,—The managers of The Children's Hospital hereby announce that they have purchased and furnished for their use the house No. 9 Rutland Street, and they are now prepared to receive patients for treatment. This institution was organized by a number of benevolent gentlemen of Boston in January

last, and received an act of incorporation from the Legislature the following month.

Its object, as has already been announced, is, primarily, the medical and surgical treatment of the diseases incident to childhood, as well as the attainment and diffusion of knowledge regarding them. It is, however, also proposed, at some future day, to instruct young women in the duties of nurses, both for children and adults.

It will be governed and controlled by a board of officers, the present incumbents of which are:—Nathaniel Thayer, President; George T. Bigelow, Vice President; John G. Wetherell, Treasurer; and twelve managers, whose names have already been announced in the public papers.

The hospital is intended by its founders for the sick poor of the city of Boston between the ages of 2 and 12 years, and such only will be received as free patients. Those, however, able to pay for treatment, and residents of other places than Boston, will be received on the payment of such sums and under such regulations as may be determined by the Board of Managers. Applications for admission will be received at the hospital on any week day at 9 o'clock. Patients of suitable age suffering from immediate accident will be received at any time, and whatever may be their place of residence.

For the Board of Managers,

FRANCIS H. BROWN, *Secretary*.

THE PROGNOSIS OF BRIGHT'S DISEASE.—From a paper on this subject, read before the New York County Medical Society by Austin Flint, M.D., and published in the *New York Medical Journal*, we make the following selections:—

I propose to arrange my remarks under the following heads:—

1. The prognosis considered with reference to the different renal affections constituting Bright's diseases.

2. The prognosis considered with reference to the symptoms and complications in Bright's diseases; and,

3. The prognosis considered with reference to the treatment of Bright's diseases.

1. *The prognosis considered with reference to the different renal affections constituting Bright's diseases.*—A question meets us at the threshold of the first of these three divisions of the subject: What are Bright's diseases? I say Bright's diseases, not Bright's disease, following, in this, the example of T. Grainger Stewart in his late

valuable treatise. The name *Bright's disease*, applied to varied lesions of the kidneys, implies their unity. The doctrine that these varied lesions, in fact, denote different stages, phases, modifications, or types, of one disease, was advocated especially by Christison and Frerichs, whose works were published within a few years after Bright's discovery, although Bright himself held a different opinion. Few pathologists, at the present moment, hold to the correctness of this doctrine; and the question now is, not whether the name Bright's disease embraces a single affection or several affections, but how many and what are the different affections to which this name has been applied? \* \* \*

1. Inflammation within the convoluted uriniferous tubes may be considered an individual disease pretty well established. It is too limited a view of the affection called, after Johnson, desquamative nephritis, and by Dickinson, tubal nephritis, to consider the inflammation as always acute. Doubtless here, as in other situations, the inflammation may be either acute, subacute or chronic.

2. The morbid condition described by Bright, and called the "smooth white kidney," should, as it seems to me, for the present, be reckoned as an individual disease. The theory which attributes this condition to inflammation within the tubes is hardly so well established as to warrant its exclusion as a separate affection. Even admitting that it is an inflammatory and an intratubular affection, its anatomical characters seem to be sufficient to constitute it a distinct disease.

3. The fatty kidney appears to have been rather unceremoniously thrust out of the group of Bright's diseases by some pathologists, on the ground either that this anatomical condition is due to a fatty degeneration of inflammatory products, or that it is merely incidental to other morbid affections of the kidneys. These reasons must be regarded as resting on inference, not on demonstration; the characters, both gross and microscopical, of the fatty kidney are highly distinctive, and an analogous anatomical condition of a fellow-gland, the liver, is recognized as a distinct affection. Hence, as it seems to me, for the present, at least, the fatty kidney is entitled to an independent position among the Bright's diseases, admitting that this, as well as each of the other affections, does not invariably exist alone, but may be associated with other lesions.

4. That the affection known as the fibroid,

the contracted or atrophied, and the cirrhotic kidney, is to be regarded as holding a distinct place among Bright's diseases, is admitted by most pathologists, although with regard to this affection, as well as with regard to its analogue, cirrhosis of the liver, there is room for discussion and difference of opinion respecting the morbid processes of which this lesion is the result.

5. Finally, no one doubts the individuality of the affection called the waxy, the lardaceous, or the amyloid kidney, notwithstanding the mooted questions concerning this morbid condition.

Here, then, are five renal affections which have claims to be recognized as distinct, constituting, collectively, with our present knowledge, the group of Bright's diseases.

Now, as regards prognosis, these different diseases are by no means on the same footing. What is true of one, respecting the probability or possibility of recovery, is not true of the others. Undoubtedly a simple inflammation of the uriniferous tubes may end, if indeed it do not generally end, in recovery, leaving the structure of the kidneys intact; and this result may be expected, be the inflammation acute, subacute, or chronic. But it is probable that, in certain cases, this affection leads to the second of the five diseases, namely, the smooth white kidney, and perhaps also to the third of the five diseases, namely, the fatty kidney. Does recovery from the two diseases last named ever take place? Our present knowledge does not enable us to answer this question positively. \* \* \*

Relatively considered, the prognosis is by far the most favorable, if only the first of these different affections exist, and of the four remaining affections, the prognosis is the most unfavorable if the contracted or cirrhotic kidney be the existing disease.\*\*\*

The prognosis in Bright's disease is affected by the successful employment, in certain cases, of means to prevent impending death. It can hardly be doubted that the conditions giving rise to uræmic coma and convulsions are sometimes removed by therapeutical interference, and the immediate danger of life averted. This happy triumph over death is sometimes followed by complete recovery from the renal affection. Were it admissible, on the score of time, I could cite illustrations of these facts from my own clinical experience. It is not often that medical practice furnishes occasions which call more urgently for the employment of therapeutical resources than the treatment of uræmic coma and convul-

sions. Whether the patient shall survive, or die within a few hours, may depend on the promptness and efficiency with which these resources are employed. To withhold or delay them is not less culpable than to allow suffocation to take place from œdema of the glottis without resorting to laryngotomy or tracheotomy. Alas for the safety of the patient, if the physician be wanting in appreciation of the remedial potency of hydragogue purgatives, and the hot air or vapor bath! I will go a step further, although therapeutical details are here out of place, and say that it may be extremely fortunate, as regards the safety of the patient, if the physician appreciates the value of a particular remedy, under these circumstances. I allude to claterium. Again, hydrothorax and pulmonary œdema may occasion imminent danger of death. Here, too, an adequate appreciation of the same therapeutical resources may be of the same importance as regards the safety of the patient. And, in this connection, I cannot forbear distinguishing the particular remedy just named. Did time permit, I could cite instances which exemplify the wonderful efficiency of this remedy in arresting death by apnoea when threatened by hydrothorax and pulmonary œdema. \* \* \* \* \*

Dr. G. T. Elliot, Jr. (at a meeting of the Medical Society of the County of New York), expressed his yearly strengthening conviction that a favorable prognosis might, much oftener than he had once supposed, be made in cases of albuminuria in puerperal convulsions. Though successive pregnancies should exhibit severe convulsions, with the urine highly albuminous and of low specific gravity, yet at the end of twenty years' hospital practice he felt that, if the patient could only be carried well through the labor, the prognosis was much better than, five years ago, he should have dared to hope. He had followed a large number of such cases through.

Dr. John O. Stone could indorse the President's remarks concerning puerperal albuminuria. He had made a point of following up all such cases as had occurred in his practice; and he deemed this very important, that the profession might have the benefit of trustworthy statistics of the results. He would mention one striking case. Ten or eleven years ago he was suddenly sent for to visit a woman in confinement. All pains had ceased, and her medical attendant suspected rupture of the uterus. She was terribly exhausted, and had lost the sight of one eye. The urine showed

abundance of albumen. The patient was stimulated and the baby was born, but died soon after. The woman then came under the speaker's care. For six years she had albuminuria; but for the last four years this had not appeared. She had not again become pregnant.

The Society then adjourned.

SCLEDERMA.—Great difficulty has been experienced to give a proper definition of this strange disease, for up to the present time only about forty cases have been reported, whose history and symptomatology offer considerable discrepancies. But few of them have been submitted to *post-mortem* examination, owing to their very chronic course, and to the circumstance that a fatal termination is generally caused by complications. Neither age nor sex is exempt from this disease, and the most various causes have been assigned for its origin. The principal and distinctive feature of this affection is evidently the presence of marked induration of more or less portions of the cutaneous surface. In none of the cases reported above could it be positively ascertained whether the inflammatory process entered as a characteristic element into their pathology, although the rapid development of the dermal hardness in Case No. II, hardly admits of any other interpretation. All of them pursued a chronic course, and showed a singular inveteracy without greatly interfering with the general health. According to the author already quoted, the induration may either depend on the increase of the connective tissue of the corium alone, or that besides this exuberant growth in which also the elastic fibres may participate, the subcellular tissue may be changed into a hard mass. In either case the adipose layer is finally removed. As far as any conclusion can be arrived at concerning the pathology of this disease from two of the cases just related, in view of the previous history of the patients, the mode of invasion, and the effects of treatment, some support is lent to the explanation ventured by several distinguished pathologists who ascribe the induration of the tegumentary tissue to lymphatic infiltration. In the absence of a description of the morbid anatomical appearances, nothing of course can be elicited which would either corroborate or refute the opinion of Rasmussen, who affiliates scleroderma with Elephantiasis Arabum.—*American Journal of the Medical Sciences.*



**NOMENCLATURE OF DISEASES.**—It is quite certain that the "Nomenclature" [issued by the London College of Physicians] will need considerable emendation before it can be recommended for final adoption. A reviewer of it in the number of the Boston Medical and Surgical Journal (May 27) whence we have derived the foregoing account [of the meeting of the American Medical Association], referring to the deputation which went to the Government to secure the gratuitous distribution of the "Nomenclature," quotes the plea urged by the spokesman, Sir Thomas Watson, "that many of the profession, especially in the provinces, could not, from their needy circumstances, be expected to buy the book, although called upon by the law to give gratuitous certificates of death," and naturally adds that this exhibits "a picture of the pitiable condition of the profession hardly to have been expected even in England." In fact, it ought neither to be expected nor to have been expressed; for it was, to say the least, a very great exaggeration to state that many, if any, of the profession could not, if it were desirable, afford to pay the few shillings the book was sold for. The true and indeed the sole ground for the application was not the poverty of the applicants, but the justice of their demand. Called upon to perform a public, and often an unpleasant duty without any remuneration whatever, they surely had the full right to be put in the possession of any instrument enabling them to execute it effectually.—*London Medical Times and Gazette.*

**CAUTION TO OVIOTOMISTS.**—Prof. Braun, of Vienna, relates a case of ovariectomy (*Wiener Wochenschrift*, Nos. 23 and 24) which proved fatal from hæmorrhage twenty-three hours after the operation. At the *post mortem* a piece of sponge was found which had been left in the cavity of the abdomen, but all present agreed that it had in no wise contributed to the fatal issue. As all the sponges used were numbered, it is supposed that this piece must have broken off from one of them. At all events, had the patient lived it might have given rise to unpleasant complications. We presume this is the case which gave rise to the report that Prof. Billroth had left a sponge behind after ovariectomy, and for spreading which he brought an action against Dr. Kraus, editor of the *Wiener Med. Zeitung*, notwithstanding the apologies and regrets for the error which he offered to publish.—*Ibid.*

**NEW RESEARCHES IN CEREBROSCOPY.**—M. Bouchut, we learn from the *Union Médicale*, has just presented to the Academy of Sciences of Paris, through M. Dumas, his researches on Cerebroscopy, which he has offered for competition for the Montyon Prize in Medicine and Surgery. He epitomizes his conclusions as follows:—

"The diseases of the spinal cord, such as acute myelitis, spinal sclerosis, locomotor ataxy, &c., produce usually a congestive lesion, and subsequently atrophy of the optic papilla."

"The lesions of the optic nerve produced by spinal disease are the result of a reflex ascending congestive action, and they take place by the intercommunication of the great sympathetic."

"The presence of an hyperæmia of the optic nerve of a vascular diffusion over the papilla, and of a partial or total atrophy of this part coinciding with feebleness or numbness of the legs, indicates the existence of acute or chronic disease of the spinal cord."—*Medical Press and Circular.*

**HYPODERMIC INJECTION OF MORPHIA IN STRANGULATED HERNIA.**—Dr. Ravoth relates some cases with the view of calling the attention of practitioners to the great assistance to the taxis which may be derived from a subcutaneous injection of morphia, which facilitates the reduction of the hernia surprisingly.—*Berliner klin. Woch.*

**THE CEREBELLUM OF THE INSANE.**—Dr. Meynert stated at a recent meeting of the Vienna Society for Psychiatria and Forensic Psychology, that insane brains had more cerebellum, proportionally, than sane; and that insane females had more than insane males.—*Medical Record.*

**GLYCO-INOSINE.**—A preparation, under this name, is sold in Europe for sweetening acidulous wines, at the rate of one thaler per pound. On examination, it proves to be common air-slaked lime.—*Ibid.*

**APPOINTMENTS AT THE CHILDREN'S HOSPITAL.**—The Board of Managers have appointed the following as the Medical Staff:—For Physicians, William Inghalls, M.D., and Francis B. Greenough, M.D. For Surgeons, Francis H. Brown, M.D., and Samuel W. Langmaid, M.D.

Why is an expert's well-paid opinion like a contradiction? Because it is a *gain-say*!

## Medical Miscellany.

CARNEY HOSPITAL.—The following circular has been sent us by Dr. Bowditch:—

Boston, July 6, 1869.

DEAR SIR.—The undersigned, members of the Medical and Surgical Staff of the Carney Hospital, beg leave to lay before you the claims that hospital has upon the benevolent of this community.

It was built by funds given by the late Andrew Carney, Esq., who intended to have properly laid out the grounds around it and to have sufficiently endowed it. Unfortunately Mr. Carney died without doing so. The hospital therefore remains in debt, causing great anxiety and labor to the excellent Sisters of Charity who devote themselves to it. The hospital is finely situated on the brow of Mt. Washington Heights in South Boston, overlooking the city and its adjacent harbor, and also commanding extensive views of the neighboring country.

It has several large wards and many private rooms, in which latter any regular physician in the city can attend his patients as he would in a hotel, subject of course to the rules of the institution. In addition to the wards for acute and chronic diseases and surgical cases, there are also a lying-in ward and one for children. The hospital is not strictly a Catholic institution, although under the fostering care of the Sisters of Charity. Every patient, by the express will of the founder, has a perfect liberty to see clergymen of any denomination he or she may choose.

It has been open since June, 1863, but only in the new parts since 1868. Six hundred and sixty-five patients have been under treatment. Forty is the average number now under its care. The Sisters in attendance will always be happy to show the arrangements of the house to those who may wish to visit it, and if any one feels disposed to contribute to its means of usefulness, communication may be held with either of the undersigned.

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AN EARLY MENSTRUATION.—T. H. Turner, Union City, Tenn. (*N. Y. Medical Journal*), reports the case of a girl, 8 years old, weighing 110 pounds, who has the symmetry and beauty of a miss of 16. Every month of her entire life she has menstruated regularly, the flow continuing 24 hours, and always attended by a slight headache. She weighed 8 pounds when born, and had the proportional symmetry of person now seen in her case.—*N. Y. Medical Record*.

As an abstract fact, there is little difference between the \$60 medical school and the same institution at double that amount; but the importance of the action of the American Medical Association lies in the value of the admission that a reform is necessary.—*Leavenworth Med. Herald*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

PUBLISHERS' NOTICE.—Readers of the JOURNAL will doubtless have noticed that during the publication of the volume which is this day brought to a close, extra pages have from time to time been given. This has been done to make room for the press of original and other matter which occasionally occurs. The number of extra pages thus issued, it will be seen, is 64. It has occurred to the publishers that a convenient and proper way is now opened to remedy an evil which has existed from the beginning of the work—viz., the commencement of the volumes in February and August instead of January and July. They therefore beg leave to state now in advance, that it is proposed to let these 64 pages—equal to four weekly numbers—and any other extra pages which may be required in Vol. IV., answer as an offset to a shortening of one month's time in that volume, allowing the succeeding volume to begin with the calendar year in January.

NOTICE.—Part LIX. of Braithwaite's Retrospect was mailed from this office on the 22d inst. to the members of the Massachusetts Medical Society who have paid their assessments for the year 1869-70. Members who have paid and do not find the book at their post office, are requested to forward their vouchers to the Librarian, care of David Clapp & Son, Medical and Surgical Journal Office, 334 Washington St., Boston.

Retired Members of the Society wishing the publications of said Society, are by By-law required to notify the Librarian as above, personally or by writing, once after the Annual Meeting.

ERRATA.—Page 455, second paragraph, for "part," read fact. Second column, for "medicine," read medical; for "Minister," read *Ministre*.

DIED.—At Lancaster, N. H., July 17th, Dr. Jacob E. Stiekney, aged 73 years.—In Baltimore, July 15th, Dr. William B. Mosher, aged 72.

DEATHS IN BOSTON for the week ending July 24, 113. Males, 58—Females, 55.—Abscess, 1—accident, 6—anaemia, 1—apoplexy, 2—disease of the bowels, 2—congestion of the brain, 2—disease of the brain, 4—inflammation of the brain, 2—bronchitis, 1—cancer, 1—cholera infantum, 28—consumption, 12—croup, 2—diarrhœa, 3—dropsy, 3—dropsy of the brain, 1—drowned, 1—dysentery, 3—erysipelas, 1—typhoid fever, 2—disease of the heart, 3—infantile disease, 4—intemperance, 1—disease of the kidneys, 1—inflammation of the lungs, 4—marasmus, 10—old age, 1—paralysis, 2—pyæmia, 1—rheumatism, 1—syphilis, 1—unknown, 4—whooping cough, 2. Under 5 years of age, 67—between 5 and 20 years, 3—between 20 and 40 years, 19—between 40 and 60 years, 9—above 60 years, 15. Born in the United States, 91—Ireland, 17—other places, 5.

*From August 1869, to January 1870.*

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LUTHER PARKS, M.D., EDITOR.

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## Original Communications.

## OPTICS AND THE EYE, AS TAUGHT AT THE UNIVERSITIES.

By B. JOY JEFFRIES, A.M., M.D., Ophthalmic Surgeon  
Massachusetts Charitable Eye and Ear Infirmary.

PROFESSOR E. H. Clarke, in his recent address to the graduating class of the Medical Department of Harvard University, told his hearers, that in their future relations to the community one of their duties would be to guide correctly, if they could not control, the study of anatomy and physiology as carried out in our schools and colleges. We agree with Prof. Clarke, that whatever may be our disbelief in the laity's being made familiar with medical subjects, we cannot prevent their present demand to become so, and thus the most we can do, is, as far as in our power, to see that untruths and mere theories are not taught instead of those accepted and proved laws of nature, the knowledge of which can do no harm.

Holding ourselves still to be students, we would follow out Dr. Clarke's suggestions in calling professional attention to the chapters on the eye and optical instruments to be found in the text books on physics, used at Harvard, Yale and Columbia. If our criticisms should seem severe, we would ask the reader to endeavor to study through the chapters here referred to. We have also good reason for saying that other portions of some of these text books are equally faulty.

Now first for our Alma Mater, Harvard. The text book on optics so long used there, is Lardner's; the very last edition of which has nearly one half the book devoted to the eye and optical instruments. If we had not seen and read, we could not have believed that any text book now used contained the inaccuracies, and we had almost said rubbish, which this book does. We have no idea of boring the reader by an enumeration of all the faults of commission and omission in these two hundred pages, but will pick out a few of the more glaring ones here and there. The wood-cut to exhibit the

motor muscles of the eyeball is very poor, and in regard to the use of two of them, the *obliqui*, we are told "anatomists are not agreed." Following the old watch-glass idea the cornea fits into a hole in the sclerotic. The sections of the eye to exhibit the optic axes are outrageously bad. The choroid is wrongly described. The retina is said to be a continuation of the fibres of the optic nerve spread over the inside of the eye to near the margin of the frontal opening covered by the cornea. The ciliary processes are said to surround and support the lens, and then we have a section in which they are half the thickness of the lens from it. The pupil is said to be black because every part of the interior of the eye which could be visible through it is colored black. To match this statement and show its origin all mention of the ophthalmoscope is omitted among optical instruments. A membrane is said to line the anterior chamber running over the lens. The rest of the anatomical description is on a par with this.

The eyeball, we are told, can turn 60° inwards and 90° outwards, 150° together; 50° upwards and 70° downwards, 120° together. Such an eye must be in a "fine frenzy rolling," and artificially assisted, as the muscles cannot effect any such thing. Next we have two or three pages about the image on the retina, and a comparison of the visual organ to an optical instrument, all of which comes from no later date than the older researches and experiments of Brewster. We are told that pencils proceeding from all objects more distant from the eye than two or three feet may be regarded as consisting of parallel rays. On a par with this we have 10 pages about the accommodation of the eye, showing an utter ignorance of any modern experiments, and consequently simply perplexing, the truth being quite left out. Refraction is dismissed by calling some eyes weak-sighted or far-sighted, and others near-sighted. In one place the author talks about the retina feeling the image formed on the choroid. Page after page of theory and theoretical discussion are introduced which have no proper place in any work on optics, and seem only

brought in to swell the whole. Extraordinary statements are made in reference to ocular spectra. Sir David Brewster seems to be the basis for all. We are told it requires a great deal of practice to see after images, whilst the reverse would be nearer the truth. In speaking of continued impressions the author talks about these being dependent on the *intensity* with which the eye has been directed to the visible object previous to its removal. Complementary colors are badly treated and pages quoted, where a few statements of the deduction arrived at would have answered much better. The bugbear of the inverted retinal images not making the world upside down is treated in the usual way. Projection not of course spoken of, or probably known. The blind spot in our field of vision is clumsily explained and exemplified. Some 15 pages devoted to monocular and binocular vision defy criticism. The author and editor seem to be quite ignorant of any distinction between seeing and perception, or to know that the latter is a mental act. Color blindness is very poorly introduced and explained, considering physicists have paid so much attention to this subject.

In the chapter on optical instruments, spectacles and their selection are talked about in a manner on a par with the rest of the subject. Although 116 pages are devoted to the theory and description of optical instruments, one of the most simple and beautiful, the ophthalmoscope, is omitted. This, too, 14 years after Helmholtz invented it, in a book said to be brought up to the times in every respect, "co-extensive with the actual state of the sciences, according to the latest discoveries." The whole chapter on optical instruments is more like the advertising catalogue of an optician. If the publishers paid for the very numerous cuts, they enhanced the price but not the value of the book.

We do not propose to say anything here about other portions of this revised edition of Lardner's Optics now used at Harvard. We touch only that which is, so to speak, professional. If objection is made to its use as a text book, the reply might readily be made, Is there any other better in English? We can only say some others are *less bad*, because the portions devoted to the eye and optical instruments are shorter. We trust this criticism will have some effect in preventing the further use of Lardner's Optics at Cambridge. There is at the present day a great deal of truth known in regard to the eye and its relations to the laws of light, which can be readily

comprehended by the student, and much which will help him in the care of his visual organs.

In Olmsted's Philosophy used at Yale we find 6 pages devoted to vision. In one sentence the eye is called a "camera obscura," and in the next "an assemblage of lenses." "The eye consists of three principal chambers," the author goes on to say, but he describes only *two*, the aqueous and vitreous. The aqueous "consists, in fact, chiefly of pure water"; a little further on, however, it and the vitreous "in consistency much resemble the white of an egg." There is a cut of a section of the human eye which is rather worse than those generally seen in text books; for this there is no sort of excuse. Even in a coarse wood-cut no larger than this, it is just as easy to represent the proportions and relative positions of the several parts correctly. This figure and one other of the thanmatrope, are the only ones given in the chapter on vision.

We are told, "back of the vitreous humor the retina lines the interior of the cavity up to the edge of the crystalline;" which is true in reference to this wood-cut, but of course not in nature. The ciliary muscle is omitted, and a curious little tag on one side represents the optic nerve. "The retina is a *net-like* expansion of nerve, on which the images are depicted for the purposes of vision; every fibre branches from the optic nerve." This is the same old stuff taken out of the many poor text books on the eye, and therefore, perhaps, excusable in the past, not, however, so now.

"Adaptation," or accommodation of the eye, is dismissed in a few words, showing utter ignorance of the method by which it takes place, so beautifully proved long ago by Helmholtz, Donders and others. Two little wood-cuts will perfectly explain this so interesting, and now so simple point. Although Helmholtz is so generally known as a physicist, yet scientific men and even professional physicists seem to ignore his perfect experiments on the accommodation and refraction of the eye.

The old bugbear of the image being inverted on the retina is treated in the usual way, namely, said to be of no importance, and then attacked with such erudite arguments as to leave the impression in the reader's mind that the author is not sure of them. The theory of projection to explain the inverted image is not referred to.

Refraction of the eye, so important for every student to understand, and so simple to explain, is dismissed in about half a page, headed "long-sightedness and short-

sightedness." It is useless to speak of it further than to say that accommodation is omitted in it, and no distinction made between presbyopia and hypermetropia.

The paragraph marked "direct and indirect vision," is particularly bad. The optic nerve where it enters the globe is called "a spot on the retina which is entirely destitute of sensibility."

These are only some of the sins of commission; the sins of omission are, of course, too numerous to mention. The ophthalmoscope is not alluded to in the chapter on optical instruments.

The book to be used at Columbia College is "Ganot's *Éléments de Physique*," translated and edited by E. Atkinson, Ph.D., F.C.S., Professor of Experimental Science, Royal Military College. Sandhurst, 3d edition, July, 1868. In such a work as this we certainly should expect to find the chapters on the eye, and vision, and optical instruments, brought up to the latest knowledge on these subjects. On turning to the chapter on "The Eye considered as an Optical Instrument," the first thing we meet is a cut giving a section of the human eye, which is about as bad as any other we know of in its relative proportions, shape, &c. In describing the globe, the old watch-glass idea of the cornea is given, a little hesitatingly it is true. In speaking of the retina, the fact is not quite distinctly put that it alone *receives* and the optic nerve alone *transmits* to the brain the impression of objects. Inversion of images on the retina is not explained by *projection*, although other theories are mentioned. Two pages are devoted to the various exploded theories in reference to accommodation. The truth, as now mathematically proved, could be explained and illustrated in one fourth of the space. It seems almost impossible to conceive that such men as the author and translator should either ignore or be ignorant of the beautiful experimental researches of such a physicist as Helmholtz. Eleven French, German and English physicists are quoted, but the truths established in the last decade not even alluded to. Donders and Helmholtz are not mentioned. This, too, in July, 1868.

Passing over some unsatisfactory pages on binocular vision, the stereoscope, retinal impressions, accidental images, irradiation, &c., we come to a page on "short sight and long sight, myopia and presbyopia," in which we are told that "short sight is the habitual accommodation of the eyes for a distance less than that of ordi-

nary vision, so that persons affected in this way only see very near objects distinctly. The usual cause of short sight is a too great convexity of the cornea or of the crystalline." "The habitual contemplation of small objects, as when children are too much accustomed in reading and writing to place the paper close to their eyes, or working with a microscope, may produce short sight. It is common in the case of young people, but diminishes with age." "Long sight is the contrary of short sight"; "the cause is, that the eye is not sufficiently convergent." If this and the following paragraphs on spectacles had been left out, we would not have complained, but in view of Donders's and so many others' published researches on the refraction and accommodation of the eye, such notice of the subject in a text-book is simply disgraceful. The paragraph on diplopia is amusing. The one on color-blindness not so, for here was a point that any physicist should have put properly. A page and two cuts are devoted, for a wonder, to the ophthalmoscope. Of course, only the inverted image is spoken of, and Helmholtz's original instrument is described as a "concave spherical reflector of glass or metal." Notice of the ophthalmoscope might almost as well have been entirely omitted, as in the other text-books on optics.

Prof. Rood, of Columbia College, informs us that he will use for the students in the School of Mines "Dr. Adolph Wüllner's *Lehrbuch der Experimental Physik*," 1862-66, in the original German in two volumes. In the second part of the first volume, page 816, we have a chapter headed "Von der Wahrnehmung des Lichtes," in which the anatomy and physiology of the eye is correctly given and fully but simply explained. The reason of this is that the whole is taken from the authors whose names are found referred to at the bottom of the page—Helmholtz, Listing, Volkman, Plateau, Fick, Ludwig, Meissner, Brücke, &c.

We would criticize but a point or two, which another edition will probably correct. The section of the human eye, page 817, is very much better than generally given. The retina, however, does not come far enough forward, and the ciliary muscle and iris are confused. P. 818. The lens is said to change its shape in accommodation by pressure of the ciliary processes on it. P. 831. Henke's mistaken notion of accommodation is given, which, as it is only theory, had better been left out in a text-book of experimental physics. The refraction of the eye is dismissed in a few lines, as if the

author was unacquainted at the time of writing with Donders's researches on emmetropia, myopia, hypermetropia and astigmatism. These can be easily explained, and should be correctly and simply described in every text book on optics.

#### DISLOCATION OF THE CRYSTALLINE LENS.

By C. K. FISKE, M.D., St. John, New Brunswick.

THINKING the following cases of some interest to the readers of the JOURNAL, I offer them for publication.

In August, 1863, Mr. C., a young man, aged 24, consulted me in regard to a painful and diseased eye, which had received a severe blow some six years previously. On examining the eye, I found the iris of the left quite tremulous, the lens dislocated and floating about in the vitreous humor, which of course had been softened, and was then in a fluid condition; vision was totally extinct. While the patient remained in an erect position, the lens lay out of sight behind the iris, but on stooping forward and bringing the face downwards it would fall directly over the pupil; in fact, it would float in all directions, according to the position of the patient's head.

The right eye was sound and vision good, with the exception of weakness from the constant pain and irritation in the left eye.

Under these circumstances, I advised extraction of the diseased and floating lens, and on the 8th of the same month proceeded to remove it in the usual way, making a clean downward cut in the cornea, and by throwing the face forward succeeded in bringing the lens to the opening and extracting it.

On account of the fluidity of the vitreous humor the eye became a good deal collapsed, but by care as regards the position of the patient, and great restraint upon the motions of the eye and brow, the globe again filled within twenty-four hours, the cornea healed rapidly without deformity, and the pupil assumed its natural form, leaving the eye looking better than before the operation and more agreeable in appearance than an artificial one. The sound eye has grown much stronger, and is at the present date free from irritation.

The second case was that of an old wood-sawyer, who called on me in the summer of 1864, with one eye completely destroyed by a powder blast and the other much injured by the same accident.

The left eye presented the following ap-

pearances:—Cornea sound and clear; the pupil much expanded, with highly tremulous iris; vision quite good while the patient was standing in an erect position, but when stooping forward the dislocated lens, covered by its capsule, would fall forward and completely block up the pupil, rendering the poor patient totally blind for the moment, or till, throwing the head back, it would as quickly disappear behind the iris, below the pupil, letting in the full light of day again, with vision good enough to follow his vocation.

I did not propose to extract the lens, for the reason that such an attempt would probably result in collapse of the eye and total loss of sight.

I have watched the case till the present time, and for several years the sight remained the same, enabling him to saw wood and keep out of the almshouse most of the time, till a few months ago he lost all useful vision by an attack of inflammation.

The third case is that of J. H., a stout, old Irishman, who called on me in February, 1865, for surgical treatment. Eight years previously he had received a severe blow in the left eye, which resulted in total blindness of the organ in a few days. On examining the injured eye, I found the crystalline lens dislocated, opaque, and lying within the pupil, adherent to and grasped by the iris, and it had been a source of much pain and irritation for several years, so much as to cause incipient cataract in the right eye.

With a view of relieving irritation and saving the sight of the right eye as long as possible, and with a faint hope of letting light into the injured organ, I proposed to remove the opaque lens from its position. Therefore, on the 30th of the following September, I broke up the adhesion of the lens, with a cataract needle, to the upper part of the pupillary margin of the iris, and depressed it backwards and downwards, letting in the light freely to the back chamber of the eye, but the patient felt no sense of light, as is usual in depressing a lens, and it was quite evident the functions of the retina had been destroyed effectually by the blow received years before. Wishing to place the lens away from contact with the iris, I broke up the lower adhesions and left it lying below the pupil, out of sight.

Very little irritation followed, and the eye became less irritable, the pupil assuming its natural form and size, but there is no vision to that eye.

The right eye is much more useful at the present date than at the time of the operation, four years ago, when he was led to my office by his daughter. I called to see him this morning, and found that vision had so improved as to enable him to receive and pay out money without assistance from any one.

June 11, 1869.

#### A CASE OF TOTAL, INSTANTANEOUS LOSS OF SIGHT OF RIGHT EYE.

By J. C. MANSON, M.D., Pittsfield, Me.

Mrs. P., American, aged 19, of healthy parentage, good *physique* and sanguineous temperament, married about three months, presented herself for treatment May 2d, and stated that two days previously, at about 2 o'clock, P.M., while about her housework, a blur suddenly came over both eyes, lasting some two or three minutes; after rubbing the eyes with her fingers, the left became perfectly clear, but upon closing that eye, found that she could not distinguish a ray of light with the right eye; all was *perfectly* dark. There was no pain or unnatural sensation; nor had there been any up to the time when I saw her. No abnormal appearance presented itself upon examination—not the slightest degree of inflammation of any of the membranes or appendages—*pupil responded as readily to light as the other*. Tongue clean—bowels regular—appetite good. Her "courses" had been regular—was "unwell" about two weeks before with no unusual symptoms. I simply advised a shade to protect the eye from the strong rays of light, and as I could perceive no indication to be filled by medicine, I prescribed none, but requested her to present herself occasionally for examination; this she has done, and now, some eight weeks having elapsed, there seems to have been no change of symptoms since first examination, with this exception—she has *ceased to menstruate*. States that she has "*seen nothing*" since the time alluded to at the first examination. *That she is pregnant I have no doubt.*

Query—How much and in what way has pregnancy to do with loss of vision? Will the sight return? and if so, when? Any advice or suggestions from yourself or the readers of the Journal will be gratefully received.

[In connection with this case, it appears proper to quote from a recent work, the statement of its distinguished author upon

the subject of congestive amblyopia.\* "It may be due to over-fulness of the system and congestion of the eye, brain or other organs. It is not unfrequently met with in cases of suppression of customary discharges, deficiency or absence of the catamenia and insufficient action of the skin and kidneys." He also mentions two cases reported by Mr. Lawson; in the first of which (published in the *Medical Times and Gazette* for 1863) suppression of the menses produced, within a few days, complete amaurosis in one eye and great impairment of vision in the other. Under the use of iodide of potassium, and with the re-appearance of the catamenia, the sight was restored. In the second (Royal London Ophthalmic Hospital Reports, iv. 65) amaurosis repeatedly recurred during the period of gestation.

H. H. A. B.]

#### CASE OF SYMPATHETIC OPTHALMIA.

By GEO. W. HANDY, M.D.

The following case of sympathetic ophthalmia is interesting, from the fact that certain symptoms usually considered prominent in this disease were absent.

J. C., blacksmith, æt. 40, applied May 14th and told the following story:—Thirteen weeks since, while working on hot iron, was struck in left eye by what he thought was a hot scale. A simple wash was used for the irritation. In a few days he was attacked with severe pain and swelling of the tissues about the eye. The pain kept him awake nights, and there was very little discharge. For the past two months there has been no pain nor irritation. The bulb is now in an atrophied condition.

Patient, for the past three days, has noticed that he could not see quite as distinctly with right, and yesterday was attacked with temporary blindness—"objects appeared for some time quite indistinct." Of course, the first suspicion would naturally be sympathetic ophthalmia, but one of the important symptoms mentioned by writers on this subject—viz.: tenderness on pressure in the ciliary region of either eye—was entirely absent. Neither was there intolerance of light or lachrymation. The right presented unmistakable but not deep ciliary injection. The iris was slightly discolored, sluggish, and had a single tag of adhesion to the lens. Ophthalmoscopic examination

\* A Treatise on the Diseases of the Eye. By T. Soelberg Wells, Professor of Ophthalmology in King's College, London, &c. &c. 1869. Pp. 408.

revealed a slight haziness of the media. The acuteness of vision was diminished to two-fifths. Patient was advised to have the atrophied bulb immediately removed, and to use as a collyrium in right a solution of atropiæ sulph. gr. i., aquæ ℥ii., four times a day.

May 14.—Left enucleated in the ordinary manner, and the recovery, as usual in such cases, was rapid and complete. On section of the eye, the vitreous humor was found disorganized into a dark-colored liquid. The retina was collected in a firm cord which proceeded from the entrance of the optic nerve, and suggested the remains of the arteria centralis retinæ. The lens was much shrunken and adherent to the cornea. Immediately back of the lens and in contact with it was a large, firm mass of lymph, twice the size of a normal lens. In the anterior and inferior portion of this mass, near the ciliary processes, was found an irregular piece of steel about the size of a pin's head.

May 17.—Wound well healed, tag of adhesion in it torn away, and pupil fully dilated. Patient directed to continue the use of atropine daily, and keep eye protected from light.

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## Selected Papers.

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### "SWEET QUININE;" WHAT IS IT?

By WILLIAM PROCTER, JR.

WE have been repeatedly asked the nature of the substance thrown into commerce by Mr. Frederick Stearns, under the name of "sweet quinine." In the March number of this journal, page 187, we gave a statement based solely upon the manufacturer's circular (not then having examined the article), from which we naturally inferred it to be the alkaloid quinia, associated with liquorice sugar. The following are the paragraphs: "Sweet quinine is as definite a chemical salt as the sulphate (or bitter) quinine—is made direct from the same source—Peruvian bark; has, like it, positive tonic and antiperiodic power." &c.

"In sweet quinine each atom of the alkaloid is enveloped in *glicion*, the sweet principle of liquorice, and it forms an aggregation of minute sugar-coated molecules of quinine." Nothing is said about any other alkaloid than quinia, and it is clearly intended that the reader should infer from the words used that the manufacturer's skill

has succeeded in combining free quinine with glycyrrhizin in lieu of sulphuric acid, so as to mask its bitterness.

Having within a few days (June 28) had our suspicion excited, we determined to examine it, and have satisfied ourself that this so-called sweet quinine is no quinine at all, but mainly the alkaloid *cinchonina* precipitated from the sulphate, dried and triturated with an impure glycyrrhizin prepared from liquorice root. *Cinchonia* is very insoluble, requiring nearly 4000 parts of cold water, hence the tastelessness of "sweet quinine," and its bitterness with acid or alcoholic fluids which salify and dissolve it. The substance associated with it is nearly all removed by hot water, to which it gives a straw-color. It froths much by agitation, and has a power of suspending or emulsifying the finely powdered *cinchonina*. These statements are based on the following experiments:—*sweet quinine* laid on reddened litmus paper and touched with a drop of alcohol restores its blue tint immediately. The same occurs more slowly with a drop of water. It is almost wholly soluble in boiling alcohol in excess, yielding a light-straw-colored alkaline solution. Treated with boiling water and well washed on a filter, it yields about 25 per cent. of its weight to that fluid, which acquires a straw color, froths much by agitation, is without bitterness, and not precipitated by subacetate of lead or alcohol. Weak iodine water gives a greenish color which soon fades, indicative of a trace of starch. Evaporated, this liquid deepens in color, and separates a dark film which remains insoluble. As the liquid concentrates its sweetness increases, and its taste is that of liquorice root. The residue insoluble in water was dried and treated with boiling alcohol, in which it dissolves, except some flocculent impurities of a dark color, probably derived from the liquorice root. The alcoholic solution precipitated crystals by cooling and by evaporation, on standing.

These crystals were soluble in dilute sulphuric acid, forming a crystalline salt, which, when dissolved in an excess of chlorine water, gave, on the addition of ammonia, a white precipitate, like that which *cinchona* produces, without the slightest trace of green to indicate quinia. When the salt was added to a solution of ferrocyanide of potassium (Dr. Bill's test for *cinchonina*), a yellow curdy precipitate fell, which by gently heating became crystalline on cooling. When the salt is dissolved in a little water in a test tube, and ether added followed by ammonia, and shaken,



the liquids separate and leave a whitish insoluble layer at their juncture. When treated by Herapath's test no indication of green Herapathite crystals was obtained but the brown precipitate, followed on standing by the dense, almost black crystals usual with cinchonia. There can be no doubt, from these results, that "sweet quinine" consists of about three parts of cinchonia and one of impure glycyrrhizin. Quite possibly there may be some cinchonidin also present, in small quantity, but no examination has been made for it. To what extent the glycyrrhizin acts as an acid towards the cinchonia we do not know, but its well-known affinity for bases renders it quite possible that such a relation might exist, though we incline to believe the union to be mechanical by trituration, as stated by the circular. We confess to being surprised at this result, when viewed in connection with the circular of Mr. Stearns. The *morale* of the affair is doubtful—cinchonia, however tasteless, is not quinine, nor does its commercial value approach that of quinine so nearly as it is made to do in the garb of "sweet quinine." When physicians want cinchonia they can get it by prescription, and it is not in accordance with our ideas of fair dealing to serve it up as a new substance.—*American Journal of Pharmacy*.

#### FATAL CASE OF TETANUS RESULTING FROM THE REMOVAL OF TEN TEETH FROM THE UPPER JAW WHILE UNDER THE INFLUENCE OF NITROUS OXIDE GAS.

By H. K. STEELE, M.D., Dayton, Ohio.

J. E. P., aged 19, of strong constitution, robust and in full health, on the 1st of March last, while under the influence of nitrous oxide gas, administered by a dentist, had ten of the upper teeth removed, for the purpose of having a full artificial set inserted.

He felt some of the pain of the operation, but was well able to endure it and recovered, apparently, from its effects, and continued at his occupation, that of farming. On the 7th of March a twitching of the lower lid of the right eye, with a tendency in it to "draw down," was observed by himself and friends. On the 8th he applied to the dentist for relief, who made an external application of chloroform, deeming that sufficient. The left eye, however, be-

came similarly affected, and other symptoms were gradually manifested until the 14th, at which time I first saw him (the distance from the city—7 miles—being, probably, a reason why I was not sooner called). There was then inability to separate the jaws more than three quarters of an inch, a spastic contraction of the masseter. There was retraction of the angles of the mouth, and an occasional clonic spasm of the muscles of the abdomen.

Under the influence of a cathartic, with full doses of belladonna and bromide of potassa, and ice-bags to the spine, two or three hours's sleep was obtained that night; without, however, relaxation of the jaws, or entire subsidence of the abdominal spasm. On the morning of the 15th there was a perceptible exaggeration of the symptoms, the spasms of the abdominal muscles at times being very painful, a drop of water falling on the chin or running down the neck, producing the spasms in their full force. Deglutition performed with some difficulty.

Chloroform, by inhalation, moderated the pain and gave temporary comfort. Atropia was substituted for the belladonna and cannabis indica for the potass. bromide, with morphine to be given at night.

March 16th.—Had slept two hours during the night after taking the morphine, but a continuance of it did not maintain relief. This morning the disease is aggravated. He cannot remain in bed, and occasionally has to be raised to the standing position—the spasms affecting all the muscles of the body, that of the extensors predominating.

From this time onward the disease increased in severity; the thoracic muscles, those controlling the respiration, being more affected than the others. There was at no time opisthotonos or emprosthotonos, but the body was powerfully extended to a straight position. He was not able to remain in bed during the last two days, and it was only whilst there was relaxation of the spasms that he could sit in a chair; *the rest of the time he was held on his feet, and required the doors and windows to be kept open*, which, in the very inclement weather, was an aggravation to his disease and precluded all hopes of affording him relief. He died on the 19th, almost in a standing position, having just sunk down exhausted by the violence of a spasm.

The treatment may be summed up as follows:—ice-bags to spine; morphine; chloroform by inhalation; cannabis indica; bromide of potassium; belladonna; atropia;

extract of calabar bean by hypodermic injection, one third of a grain in solution, and one grain per ore. The remedies affording the most relief are in the order in which they are named.

Chloroform, for the last two days, affected the respiration dangerously. The hypodermic application of calabar bean was not in the least beneficial.

Dr. Jno. Davis, of Dayton, saw the case with me the last three days.—*Cincinnati Lancet and Observer*.

## Reports of Medical Societies.

NORFOLK DISTRICT MED. SOCIETY OF MASSACHUSETTS. REPORTED BY WM. H. CAMPBELL, M.D., OF ROXBURY.

A REGULAR quarterly meeting of the Norfolk District Medical Society was held at Roxbury, July 14th, 1869, at 11, A.M., the President, Dr. Cotting, in the chair.

The records of the preceding meeting were read by the Secretary, Dr. Jarvis, and accepted.

After which the subject for discussion—*Croup and its Treatment*—was taken up.

Dr. Jarvis, of Dorchester, introduced the subject by reading a short paper, in which he showed that until comparatively recently this disease had been confounded in mortuary statistics with other throat diseases, so that little can be gathered as to its frequency in various localities from what has been recorded. He spoke of the influence of climate, and gave as the result of reports of mortality that it was less fatal in our Northern and Southern than in the Middle States. A sea-side residence seemed to have no influence. He earnestly deprecated the old methods and all kinds of lowering treatment, adding that he believed that the system of management of the disease had fortunately completely changed in modern times from the perturbing course of former years.

Dr. Little, of Jamaica Plain, followed with an interesting *résumé* of the various opinions concerning croup and its treatment advanced by the various authorities, and favored the later views on the subject.

Dr. Martin, of Roxbury, spoke only of treatment. He thought much harm had been done by confounding this disease with diphtheria. There was a great tendency in the parts about the throat to inflammatory conditions, with exudation, in the course of

many diseases, and a proper distinction should be made. If croup was early treated by emetics and baths, he thought it might be treated with success, but in the later stages emetics did more harm than good. He thought it might be arrested in the commencement of the attack, from the fact that those who are in good circumstances and have better attention and earlier treatment have less membranous croup than the poor and squalid, among whom he had had his worst cases of this disease. As the disease advanced, emetics and lowering measures were not of service. Leeches to the throat might be useful. He spoke of the immunity of "croupy" children from this croup, and thought that the reason of the immunity was that means were applied early. In very severe cases, he advises large doses of calomel (gr. i.—iss.) every two hours, so as to rapidly affect the system—and thinks he has seen great advantage derived from the use of this drug. He believes it to be the only agent we have that is of use in the advanced stages. He related his experience in the operation of tracheotomy; his actual success had not been great, but he was in favor of the operation, if for nothing more than the immediate relief. It also gave another chance to the patient in croup; not so, however, in diphtheria, which seemed to be a blood disease. He advocated the operation without the tube, merely fastening the lips of the wound apart by a wire attached to little horse-shoe shaped plates, specimens of which he exhibited. He thought there was one party of physicians who operate too often, and another who were too much opposed to the operation, but that there was a mean in which the truth lay. It was a simple operation, and would do no harm if it was not successful.

Dr. Mann, Sr., of Roxbury, had no confidence in any kind of treatment in severe cases. Very severe cases would sometimes get well, and other cases would die, even after the expulsion of the membrane.

Dr. Wood, from the Sandwich Islands, present by invitation, said the disease was seldom or never seen there. He never saw a case there. The climate, he said, was moist, temperate, with little variation, the thermometer ranging from 60° to 80° Fahr.

Dr. Bacon, of Sharon, spoke in favor of the calomel treatment, and thought he had seen spasmodic croup relieved by bleeding. He opened the jugular vein in a case and took a pint of blood, and the patient rallied, although apparently dying before the blood was drawn.

Dr. Amory, of Brookline, spoke of the inhalation of the vapor of the sulphide of mercury as having been tried in Europe with success. It acts by softening the membrane, and Dr. A. thought an emetic might be of service after the inhalation, in assisting to remove the *débris*. Dr. A. asked those who had spoken of tracheotomy if the membrane extending below the bifurcation of the trachea would not be a contra-indication to the operation.

Dr. Martin said that in the only case of his that recovered the membrane did not extend so far, and he did not think the operation would be successful if it did.

Dr. Seaverns, of Roxbury, thought it would be impossible to know how far the membrane extended, before an operation, for there was so much difficulty in the respiration that the exact condition of the lungs and bronchiæ could not be made out.

Dr. Cushing, of Dorchester, had operated five times, with one recovery. Some had recovered under use of the laryngeal syringe. He reported a case actively treated at the commencement with calomel, with continued increase of severity, which afterwards improved with the syringe, &c., to recovery. He spoke also in favor of operating without the tube. He thought croup was never a constitutional disease, and became fatal always by causing suffocation, and the operation of tracheotomy the most likely thing to give relief. The aim should be to keep up the supply of air, and encourage respiration by keeping the air moist. Opium should be given to relieve the spasm which is present, and wine, &c., for support; but no treatment will shorten the disease—it will run its course. Tracheotomy ought to be performed whether the case is to recover by it or not, as it relieves at the time and may prolong life.

Dr. Burgess, of Dedham, said there was very little true croup in Dedham; he thought it possible for false croup, so called, to run into true croup.

Dr. Mann, Sr., spoke of its occurring in certain families, and also thought one disease to run into the other.

Dr. Cushing thought these distinct diseases, as much so as variola and any other eruptive disease. Where one disease seemed to change to the other, perhaps there was a mistake in diagnosis in the first instance.

Remarks were also made by Drs. Fogg, of South Dedham, Arnold, of Roxbury, and others, and by Dr. Putnam, President of the State Society, present by invitation.

The President, in concluding the discussion,

said that by appointment he had given the results of his observations on real cases to the Society, and they were published in the Boston Medical and Surgical Journal, Sept. 22, 1859. Since then he had not seen reasons to greatly alter the opinions there expressed. To him the disease appeared sui generis, as much so as measles, small-pox, &c.—sometimes accompanying or following, but never the resultant of other diseases. The membrane by which it is characterized is peculiar, and being vital, is not to be produced artificially. In “diphtheria,” so called, there is rather exudation, or sloughing, or both. He thought there was reason for considering croup a constitutional disease, probably with incubation—the strong local demonstration being principally lethal on account of the parts affected. He had seen death early in the disease when no severe obstructions in respiration had occurred, and when *post mortem* revealed only thin membrane and an open larynx. He considered it self-limited, capable of recovery under all kinds of treatment; and without treatment—relating a case in point. He had known well the old treatment, “the enormous polypharmacy of modern times,” having been brought up in it, but had labored hard in assisting to bring about the improvements of the present day. It had been no easy task, yet so effectively done that now-a-days young practitioners receive without mistrust, even as common-places, and unhesitatingly avow principles and practice which but a very short time ago it was heresy to enunciate, and which have been established only through much resistance, misrepresentation and detraction. He admitted that any of the methods, or drugs, advocated, might possibly be useful in particular cases, but the treatment should be directed to the individual's condition, nature guiding, rather than to the title of the disease. Anodynes, vapor, and sustaining measures he thought best in most cases. He would not, however, hesitate to try anything that could reasonably be expected to prolong life, or, as Trousseau said, to “hinder from dying,” until the disease could reach its limitation. In this view he resorted to tracheotomy; which, however, should not be performed without full recognition of its dangers, immediate and remote. He had seen a patient, in the hands of the most skilful, die upon the table from the operation solely. The suggestions of members to-day of omitting the tubes he thought timely, as tubes in themselves are an obstruction not to be disregarded. More than twenty

years ago he had operated satisfactorily without tubes, as taught by Lisfranc and others a quarter of a century before. Our observations should be unprejudiced, rigid, and the results frankly and fearlessly stated. In the course of the present discussion he had been reminded of Velpeau's answer to Leverrier in the Academy of Sciences, an answer worthy of constant remembrance. "Many affections yield without treatment, and, it must be acknowledged, sometimes in spite of all treatment. To this fact we must not be wilfully blind. \* \* \* After the exhibition of a remedy, the symptoms have yielded once, twice, thrice, or oftener; hence, it is inferred that the cure has been in consequence of the treatment. The inference is a natural one, but almost invariably incorrect."

After the close of the discussion and the transaction of some business of an unimportant character, the Society adjourned, at 3, P.M., to partake of a collation at the house of the President.

### Bibliographical Notices.

*Circular No. 2. A Report on Excisions of the Head of the Femur for Gunshot Injury.* War Department. Surgeon General's Office, Washington. Government Printing Office, 1869. 4to. Pp. 141.

Of the circulars issued from the Surgeon General's Office, this conveys to the reader more than any of its predecessors a vivid idea of the valuable statistical material accumulated in the surgical archives of the Government.

The liberality with which the Public Medical Documents have been distributed, assures those interested in the subject that they will ere long have an opportunity of personally examining this interesting trophy of the industry and zeal of Dr. George A. Otis [Brevet Lieutenant Colonel and Assistant Surgeon, U.S.A.], in the patient and persevering investigation of Hospital Registers and surgical literature. Having been favored with advance sheets, a brief analysis of the contents of this circular will doubtless interest the readers of the Journal.

The Report is introduced by a very complete historical review of Excision of the Head of the Femur, more so in its details than has ever been published; bringing it, in its relation to gunshot injuries, down to the period of the Rebellion. Previous to the Crimean War six instances only had

occurred in which this operation had been undertaken. It was performed six times during that war, and Dr. Otis notices the fact that the British surgeons, by whom alone it was practised, did not attempt the operation until the siege of Sebastopol being commenced, hospitals were established, and they had witnessed numerous unsuccessful hip-joint amputations.

At the time when Circular No. 6 (On the Nature and Extent of the Materials available for a Surgical History of the War) was published, but twenty-nine cases of excision of the head of the femur for gun-shot injury, occurring in our own military practice, had been registered. Since that period thirty-four other cases have been collected, making a total of sixty-three operations. Of these forty-eight were performed by Union and fifteen by Confederate surgeons. All cases where a possibility of duplication existed, or which from insufficiency in details were unfit for statistical purposes, having been sedulously rejected, and each individual instance of the operation being authenticated and given in detail, nothing hitherto published approaches in value or equals in interest this present contribution to the literature of excisions.

In an introductory letter to Surg.-Gen. Barnes, Dr. Otis alludes to the division of operations for gun-shot injury into primary, intermediate and secondary, and defends this classification from criticism; justly remarking, that "there is a wide difference in the results of operations performed immediately after the reception of the injury, those performed during the existence of inflammatory action, and those done after the symptomatic fever and inflammatory symptoms have abated."

Adopting the division above indicated, which ought not to require any argument for its vindication, the sixty-three American excisions are classified as follows, viz.:—thirty-two primary, twenty-two intermediate, and nine secondary.

Of thirty-two primary excisions, two were followed by recovery. In the thirty fatal cases, the mean duration of life after operation was seven days.

In twenty-two intermediate excisions, the interval between the injury and the operation ranged from two to twenty-eight days. Two were followed by recovery. In the twenty fatal cases the duration of life was twelve and a half days. One patient survived seventy-five days and another twenty days, both succumbing to malarial disease rather than the effects of either wound or operation. Three of the above cases were

attended by fracture of the pelvis, and would probably not have been operated on had this complication been detected in advance.

The number of injuries of the hip-joint which survive until the secondary period is reached must naturally be small. Only nine instances of excision during this stage are recorded, and of these one recovered. The interval between the injury and the operation varied from thirty-three days to nearly seven months (the successful case). One patient survived the operation one hundred days, the remainder less than a week.

Under the head of "unclassified and doubtful cases," a number of alleged instances of the operation are noticed, but they are so incomplete, or so imperfectly authenticated, that Dr. Otis rejects them and publishes their meagre details only in the hope of eliciting further information in regard to them. In this connection the opportunity is taken for a little sharp criticism of a paper by Dr. Paul F. Eve, in the Transactions of the American Medical Association for 1867, in which that writer attempted to collect the instances of excision of the head of the femur that occurred in the southern armies, viz., thirteen cases with five recoveries. The operation does not appear to have been frequently performed in the confederate service. Fifteen instances have, however, been gathered by Dr. Otis. This is two more than are enumerated in the paper of Dr. Eve, for of his thirteen cases Dr. Otis rejects eight (giving reasons for so doing), and four of his five alleged successes. The great mortality of this operation wherever performed hardly justifies, in view of these corrections by Dr. Otis, the statement of Dr. Good (late of the confederate army, and whose name is identified with the subject through the best monograph on excision of the hip for disease yet published), who, in a review of the paper of Dr. Eve (*Gaz. Heb.*, No. 42, 1868), observes that the fatal excisions of the hip in the Southern armies were "not the consequences of the operation but of the want of sufficient food and necessary comforts for the sick." These influences and the unfortunate necessity for transportation undoubtedly told upon the results, North as well as South, but were far less powerful than the combined effects of the injury and the operation.

In a chapter on the excisions performed since the war, eight intermediate operations, with one recovery, and one secondary operation, four months after injury, which proved fatal, are collected. These, added to the sixty-three previously tabulated, make a grand total of eighty-five operations, with eight recoveries.

But the most interesting, as it is the most novel, part of this report is the elaborate chapter on "Temporization in the Treatment of Gun-shot Injuries of the Hip." This, which is enlivened by a slight flavor of controversy, is designed to refute the assertions of "three modern writers on military surgery—Dr. Hermann Demme of Berne, Prof. N. Pirogoff and Dr. S. W. Gross," who "have taught latterly that the expectant plan of treatment of gun-shot injuries of the hip-joint is inadequately appreciated by surgeons, and have collected instances to prove that the commonly received opinion that such injuries are uniformly fatal when abandoned to the resources of nature is altogether fallacious."

The riches of the Registers of the Surgeon-General's office are unfolded in the mass of cases arranged for the conclusive refutation of the above opinion. Two hundred and seventy-four cases of gun-shot injury of the hip, with forty-nine examples of recovery, are analyzed, and the following deductions drawn:—"Among the one hundred and twenty-two cases of the first category—cases of alleged gun-shot injury of the hip-joint, with fracture of the head or neck of the femur—there were eight recoveries. The thirty-seven cases of the second category, complicated by injury to the acetabulum, all proved fatal. The five cases of slight injury to the acetabulum, in which the joint was opened but the femur uninjured, terminated fatally. In the series of twenty-two alleged examples of gun-shot wounds of the hip-joint, without direct lesion of the osseous articular surfaces, there were seven recoveries. In the category of twelve cases of secondary traumatic arthritis, five patients survived. Among the seventeen cases of gun-shot fractures of the trochanters, with possible primary injury to the joint, three recoveries are reported. Of the twelve cases of secondary involvement of the hip-joint, after fractures in the trochanters, two recovered. Finally, in a series of eighteen cases of alleged gun-shot fracture, involving the articulation and treated by the extraction of fragments, there were six recoveries."

But the careful scrutiny of these asserted recoveries leads Dr. Otis to the further conclusion that in the great majority of them the evidence of direct injury to the hip-joint is altogether inadequate. He says: "I am not satisfied by the evidence in any of the alleged examples of recovery, without operative interference, from gun-shot wounds involving the hip-joint,

reported by authors or recorded on the registers of this office. I continue to share the convictions of Guthrie and the elder authors as to the uniform fatality of such injuries when abandoned to the resources of nature. I am fortified in this opinion by the fact that, with the exception of Dr. Winne, none of the officers of the regular staff have ever observed an unequivocal instance of recovery under such circumstances; by the testimony also of a majority of the surgeons of the volunteer staff, and the concurrent testimony of a large number of those regimental surgeons who, as chiefs of divisions or of field hospitals, contributed so largely to the credit of American military surgery. Had it been impracticable to offer the conclusive evidence on the subject recorded in the preceding pages, I would have willingly opposed to the assertions of Drs. Pirogoff, Demme and Gross the convictions of this great body of experienced men, who have enjoyed unprecedented opportunities of observation, and who, with a solitary exception, aver that they have never seen a recovery from an undoubted gun-shot injury of the hip-joint treated on the expectant plan."

Since the publication of "Circular No. 7" on hip-joint amputations, twenty-two additional cases have been obtained. "Nine of these pertain to the surgery of the American war, and increase that list of operations from fifty-three to sixty-two; seven were cases of an earlier date, to be added to the one hundred and eight cited from previous sources, and six have been recently reported. Of the whole number—one hundred and eighty-three—but eighteen resulted in recovery."

The percentage of mortality in eighty-five cases of excision being 90.6 per cent.; in one hundred and eighty-three amputations, 90 per cent., and in one hundred and twenty-two cases treated on the expectant plan, 93.4 per cent., it might be "dogmatically concluded that operative interference was always indicated, and that amputation was preferable to excision." But Dr. Otis argues, with great propriety, that the question does not admit of a mere arithmetical solution; and while he utterly discards expectant treatment, the conclusions on which it has been defended being illusory, he maintains and shows by a careful and painstaking investigation that, except in a limited number of circumstances, excision affords a better chance of recovery than any other procedure; "eight recoveries in eighty-five excisions at the hip after gun-shot injury constitute an encouraging result, and

are examples of the saving of life in an almost hopeless class of cases." Dr. Otis is of opinion that suffering is greatly diminished by the operation; but that if unsuccessful the duration of life is abbreviated by its performance. The "concluding observations," in which the relative merits of this operation, amputation and temporization are examined, is a very elaborate argument, bearing no marks of prejudice or uncandid treatment of a question, the merits of which the author makes as clear and conclusive to others as they evidently are to himself.

The report concludes with a few brief observations on the best methods of excising the head of the femur and of subsequent treatment. A straight incision and absolute rest and immobility of the limb, no matter how obtained, are the two conclusions reached in regard to these points.

As in preceding circulars, the illustrations in the present one are profuse, being seventy-one in number, besides four full-page portrait lithographs of patients whose excisions have been recovered from. These are all admirable as works of art; they contribute largely to the elucidation of the cases, and often enable the reader to arrive at an opinion independently of the author.

We conclude this analysis of Dr. Otis's monograph with the expression of a feeling of pride at the manner in which the duty has been executed, and with a reiteration of the impression that it is the most important as well as the most complete of the entire series of Surgical Reports which have emanated from the pen of this accomplished officer.

The following tabular view presents a recapitulation of the comparative mortality of amputation and excision of the head of the femur.

AMPUTATIONS.	Cases.	Died.	Recovered.	Doubtful.	Death-rate
Primary	79	75	1	3	98.68
Intermediate	76	70	6		92.10
Secondary	20	13	7		65
Reamputations	8	4	4		50
Aggregate	183	162	18	3	90*

EXCISIONS.	Cases.	Died.	Recovered.	Death-rate.
Primary	39	36	3	92.3
Intermediate	33	30	3	90.9
Secondary	13	11	2	84.6
Aggregate	85	77	8	90.6

\* The doubtful cases are omitted in computing the percentages.

R. M. H.

# Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 5, 1869.

## NOTES FROM FRENCH JOURNALS.

*The Seat of Intelligence—the Primordial Cell.*—M. Amédée Latour, in his fine introduction to the *Dictionnaire Annuel, &c.*, for 1868, makes certain remarks which we here translate.

The most delicate and penetrating investigations of the microscope, of the scalpel, and of chemistry transfer certain problems without solving them. Whether you place the seat of intelligence in the encephalon as a whole, or only in the anterior lobes of the brain; or confine it to certain convolutions, to such or such a part of the gray substance, or finally to this or that cerebral cell, the problem of thought retreats, but is still a problem. The sphynx preserves always her silence, whether you interrogate her with the point of your finest needle on the *porte-objet* of your most powerful microscope, or by the closest analysis of the most searching chemistry.

And that cell, the pivot to-day not only of philosophy, but also of medical doctrine—whether you assume it to be born of a blastema or of the proliferation of an antecedent cell—from the moment that you recognize it to be living, and discern in it properties which the dead cell does not possess, you behold the impenetrable problem of life retire within its extreme limits, but still preserving its mystery. Make for us a man complete in all parts! was wont to be demanded of the iatro-chemists and mechanicians. Manufacture a *homunculus*! was once the importunate cry. To-day we may content ourselves with demanding that a single living cell be made by human power, and, that done, we will believe in the legitimacy of your objurgations against the *vitalism* which now offends you, and which rises as an impassable barrier to your ambitious pretensions.

Yet one of the most zealous adepts of the school of Robin, Doctor Onimus, has announced that he has produced leucocytes

[the everlasting “what is it”—the pus or mucous globule] completely formed, by inserting under the skin of a living rabbit the serum from a blister enclosed in a sac of goldbeater's skin. But, his experiments have been the subject of serious objections. Repeated by Doctor Lortet they have received quite another interpretation in the hands of this new experimenter. According to him either the *leucocytes* pre-existed in a state of extreme tenuity in the blister serum which is one of their usual habitats, or they had passed from the animal into the serosity by osmosis. When a fact of such importance lends itself to interpretations so different from each other, it is not wise to admit that one which stands at the greatest distance from the principles of natural philosophy.

*Researches on the internal structure of the Pancreas, by M. Giannuzzi.*—We find in the *Gazette Hebdomadaire, &c.* a brief passage from the monograph of Giannuzzi. The excretory canals of the pancreas, he says, have very thin walls, which are lined with cylindrical epithelium. They have not the same connection with the secretory vesicles which the excretory canals of the salivary glands have with the secretory vesicles there, but they form around them a network composed of very minute tubes, which tubes are devoid of epithelium, and enclose in their meshes the pancreatic cells. This network is comparable to that of biliary ducts.

The net-work of excretory canals in the different vesicles which form the same glandular lobule have connections *inter se*, and constitute a common net-work.

The terminal ramifications of the blood-vessels generally follow the course of the pancreatic ducts.

The pancreatic vesicles have no wall. Their pavement epithelium is formed of flattened cells having nuclei and prolongations.

The following items are from the *Union Médicale*.

*The cold weather of the month of June last said to be caused by spots on the Sun.*—Among the causes to which may be attributed the cold weather which prevailed in the month of June, Astronomy claims to furnish one, which is related for what it is

worth. Upon the disc of the sun are constantly found spots having the effect of veritable screens, \* \* \* \* and as the number and dimensions of these screens vary without cessation, the heat which we receive varies likewise, but in inverse proportion. On this head, Secchi, the celebrated Roman Astronomer, writes in the *Giornale di Roma*, that the sun finds itself at present in an epoch of very numerous spots. In the morning of June 7th, there were counted thirty-three principal ones, disposed in seven or eight groups, their number rapidly increasing to the maximum. The whole sun was in reality covered. It appeared several times as a mass of white flakes on a ground-work of glowing embers.

A certain degree of importance attaches itself to the observation of the eminent astronomer in that he adds that the variations of the solar spots appear confined to a period which is all but triennial. According to this, there is ground for hope that astronomy, by establishing the law of the variations of the solar spots, may furnish valuable data for the prediction of variations in temperature and in the course of the seasons.

*Cholera.*—There is news from Senegal to the effect that the cholera is making great ravages along the borders of the River Gambia and at Sainte-Marie de Bathurst.

*Consanguineous Marriages.*—A short time since we gave an extract, which was to the effect that the marriage of blood-relations was not productive of defective offspring except in so far as it involved the ordinary laws of heredity. We learn, however, through the *Gazette Hebdomadaire*, that Dr. Mitchell, in a treatise which we have not seen, takes the other view heretofore entertained by many. In this work, which the *Gazette* pronounces very interesting and very "conscientiously" prepared, the author has studied the question upon small isolated groups of population, inhabiting either little islands or villages upon the shore of the North of Scotland. He has endeavored, on the other hand, to ascertain how many idiots and how many insane inmates of asylums were the issue of consanguineous marriages. From these inquiries the author, we are

told, infers that such marriages are objectionable, on the basis of numerous and convincing facts.

*The Thrombus in the Ligature.*—The part which the clot plays in the obliteration of arteries subjected to ligature has, in spite of multiplied researches, says the *Gazette Hebdomadaire*, remained a subject of controversy, to which histological investigations have given a new interest. The observations of Weber have brought up again former discussions on the organization of the blood. The problem has changed ground, however, in the direction of the assumption that organization was due to the white globules and not to the fibrin. The partizans of the opinion set forth by Weber and Billroth, though not numerous, bring to the debate a conviction so profound that it becomes necessary to enlarge the field of experiment.

Dr. Tschansoff has undertaken a long series of experiments, the results of which are not vague, and which demand attention. The author has examined the results of 36 ligatures upon arteries or veins, and has been able to follow out the diverse phases of the obliteration of the arteries. His work is summed up in the following conclusions:—The thrombus does not become organized. The white corpuscle, the red globule and also the fibrin present profound modifications. The white corpuscles lose their color and become filled with granulations; they are themselves reduced to the condition of granules. The fibrin undergoes molecular destruction, or in rare cases fatty metamorphosis. This destruction proceeds *pari passu* with the organization of the vascular walls. The clot performs no other part than to prevent secondary hæmorrhage. The formation of vessels in certain parts of the thrombus has for its point of departure the vascular wall. The thrombus and the ligature favor their development by irritation. The general state of the system and also local conditions influence the production of organization and the length of time consumed in its completion. The epithelial coat and the muscular fibres of the middle coat do not share in the process of organization. \* \* \*

The reappearance of the cavity takes



place in an irregular manner. The tissue of new formation, whether within the walls or about the new orifice, presents an abundant vascularity. The vessels penetrate through the walls and open into the new cavity, whether this have been formed entirely or only in part. Their development takes place along with the formation of the young tissues. The presence of canals in the tissue around the orifice cannot be doubted. The current of blood is re-established through the wall without the participation of the canals.

The view that there is organization of exudations, of sanguineous effusions, of hæmatomata, of white corpuscles in the clots, \* \* \* is not established on a solid foundation.

The *Gazette* has obtained the foregoing account from a German journal.

WE call special attention to the article on "Sweet Quinine" in this number. We print it as a selected paper at the suggestion of one of our most eminent physicians, who has written to Prof. Procter to thank him, on behalf of the profession, for his able statement and for the noble stand he has taken. The independence and loyalty to principle of Prof. Procter are the more conspicuous from the fact that he has been a personal friend of the vender of the preparation in question, and that both have held prominent office in the American Pharmaceutical Association. Such a course of action must tend toward the development among the pharmacists of an *esprit de corps* of the most desirable character.

MR. EDITOR.—In the *Chicago Medical Examiner* for July, 1869, p. 407, in a "report of the nineteenth Annual Meeting of the Illinois State Medical Society, commencing May 18, 1869, in the City of Chicago"; on Thursday morning, the third day, in a general discussion on Chloroform and Ether, there occurs the following paragraph:—

"Dr. E. Powell stated the fact that a few years since he saw the Ether administered to a patient in the Hospital at Boston, Massachusetts, who died directly from the effects of the inhalation."

If by the Hospital at Boston, Massachusetts, is meant the Massachusetts General

Hospital, the undersigned, comprising all the past and present surgeons of that Institution, now living (with the exception of Dr. H. J. Bigelow, who is temporarily absent from the city), desire to say, that no patient ever died from the inhalation of Ether in that Hospital, nor are they cognizant of any such occurrence in Boston or elsewhere.

S. D. TOWNSEND, *late Surgeon M. G. H.*

HENRY G. CLARK,

SAMUEL CABOT,

GEO. H. GAY,

R. M. HODGES,

ALGERNON COOLIDGE,

BENJ. S. SHAW, *Resident Physician.*

Attending  
Surgeons.

Boston, July 29, 1869.

DR. GEORGE W. SWETT.—The daily papers announce the death of this estimable young man, at Bonn, on the 27th inst. Dr. S. received his medical degree here a year ago, and immediately went to Europe to continue his studies. He passed last winter in Vienna, and had very recently left Berlin for a tour in Switzerland, when he was attacked with diphtheria and died in a few days. His friend, Dr. Henry Bowditch, happened, fortunately, to be in Bonn at the time, and from him he must have received every possible attention. The former classmates of Dr. S. in College, his fellow-students in the Medical School, and all, in fact, who knew him, will remember the great purity of his character, his quiet and uniformly gentlemanly manners, his self-possession, and the prudence that led him never to speak ill of anyone, either directly or by insinuation. He had been devotedly attentive to his profession since he commenced his studies, and would have been an ornament to it if he had lived. Dr. S. had, also, refined and cultivated tastes; and, being well acquainted with the botany of this neighborhood, he had been in the habit since he had been in Europe of making excursions into the country for the pursuit of his favorite study, wherever he might be, and whenever his medical studies would allow him a few leisure hours. He also highly enjoyed the galleries of art that he visited in Germany and Italy. His character was a beautiful one, and the loss of him, as an only son, must be to his parents irreparable.

CERTAIN letter envelopes, the interior of which are colored a bright green, are so colored by means of arsenite of copper. Each of these envelopes is said to contain about 25 milligrammes of this salt.

## Medical Miscellany.

**PRESCRIPTION AND CLINIC RECORD.**—“*Its Object.* 1. To give more precision and certainty to prescriptions by writing them twice—once for keeping, and once for the apothecary. 2. To substitute, more and more, positivism for conjecture in diagnosis and prognosis. 3. To record phenomena on the spot and keep their series in sight. 4. To treat complex or protracted cases with scientific unity of plan. 5. To enable a physician to continue, with perfect knowledge, the treatment of the case of a *confière*, absent or sick. 6. To keep physicians posted on the use of improved instruments of medical diagnosis, as surgeons generally are in regard to those of their art. 7. To enfranchise the physician from carrying papers headed with the name of some enterprising druggist, as if the former was subservient to the latter; or from writing his prescriptions on begged scraps of paper.

“*Its Use.* A. The three great vital signs—heat, respiration, pulse-beat—have to be recorded at least once in every case, because their concordance or discordance may reveal danger where none could otherwise be suspected, or treachery where disease is simulated. B. The diagram of two cases of pneumonia, reported from the New York Hospital, and from the wards of Dr. W. H. Draper, as early as May, 1866, will serve as specimens to fill up the following blank ones in private practice. C. The sphygmograph is described and its application explained. D. The necessity of early testing obscure anomalies of contractility by the various modes of investigation offered by dynamometry. E. Ethesiometry is likewise illustrated. F. Mensuration in its varied forms is insisted upon. G. The tables of observation to be filled during the use of electricity, strychnine, ergot, &c., will evidence the march of nervous affections, otherwise so obscure.”

Published by Wm. Wood, 61 Walker St., New York.

This little pamphlet collection of leaves, about four inches wide by eight long, hardly affords “sea-room” enough for a complete record of cases, but must be of great service in keeping the record of patients with chronic diseases, to whom, or from whom, visits are few and far between.

**COMMONWEALTH OF MASSACHUSETTS.** *Secretary's Office, Boston.*—His Excellency the Governor, with the advice of the Council, has appointed Henry K. Oliver, of Salem, chief of the Bureau of Statistics on the subject of labor; Dr. Henry I. Bowditch, Dr. George Derby and Warren Sawyer, Esq., respectively of Boston, Robert L. Davis, Esq., of Fall River, Hon. Richard Frothingham, Jr., of Charlestown, Hon. P. Emory Abrieb, of Worcester, and William C. Chapin, Esq., of Lawrence, members of the State Board of Health and Vital Statistics.—*Advertiser.*

Dr. J. G. DEARBORN has been appointed physician to the Massachusetts State Prison, in place of Dr. Bancroft, who has been selected to take the medical charge of the Chelsea Hospital.

**EMENDATION.**—An extract from the Dublin *Medical Press and Circular* in our last was, as printed, “correct by copy.” But the name “Bonchut,” we presume, should read *Bouchut*; and the word “mystitis,” *myelitis*.

**JAMES YEARSLEY, M.D., M.R.C.S.**—James Yearsley died on the 9th of July at his residence, in Saville-row, of cancer of the liver, at the age of 61. He was born at Cheltenham, and became a pupil of Mr. Fletcher, of Gloucester, one of whose daughters he married. He passed his examination at the College and Hall in 1827, and subsequently took the degree of M.D. at St. Andrews in 1862.

**LONDON CHARITIES.**—The Bishop of London states that there now exist in London more than a thousand associations for charitable purposes, administering annually about £4,000,000, in addition to the regular assessment of the poor-rates. Yet there is such a spread of want, misery, pauperism and crime in that metropolis that the authorities are at their wits' end to meet it.—*New York Medical Record.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Henceafter we shall mention the receipt of those articles only which are *accepted*.

Communications accepted:—Subcutaneous Injection of Corrosive Sublimate in Syphilis.—Penetrating Wound of Female Genito-urinary Organs.—Diagnosis of Lesions of the Base of the Brain.

**PAMPHLETS RECEIVED.**—On the Treatment of Uterine Catarrh. By Joseph Kammerer, M.D., Physician to the German Hospital and Dispensary, New York.—Circular No. 2. War Department, Surgeon-General's Office, Washington. Report on Excisions of the Head of the Femur for Gun-shot Injury.

**DEATHS IN BOSTON** for the week ending July 31, 196. Males, 102—Females, 94.—Accident, 3.—anæmia, 1.—apoplexy, 3.—disease of the bowels, 1.—inflammation of the bowels, 1.—congestion of the brain, 3.—disease of the brain, 6.—inflammation of the brain, 1.—cancer, 5.—cholera infantum, 76.—consumption, 22.—convulsions, 3.—croup, 1.—debility, 2.—diarrhoea, 4.—diphtheria, 2.—dropsy, 1.—dropsy of the brain, 2.—dysentery, 11.—scarlet fever, 2.—typhoid fever, 2.—tistula in ano, 1.—disease of the heart, 1.—infantile disease, 2.—intemperance, 3.—inflammation of the lungs, 4.—marasmus, 11.—measles, 1.—necrosis, 1.—neglect, 1.—old age, 2.—paralysis, 1.—peritonitis, 3.—premature birth, 2.—puerperal disease, 2.—rheumatism, 3.—scalded, 1.—syphilis, 1.—unknown, 1.—whooping cough, 3.

Under 5 years of age, 122—between 5 and 20 years, 12—between 20 and 40 years, 21—between 40 and 60 years, 20—above 60 years, 18. Born in the United States, 149—Ireland, 36—other places, 11.

THE  
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## Original Communications.

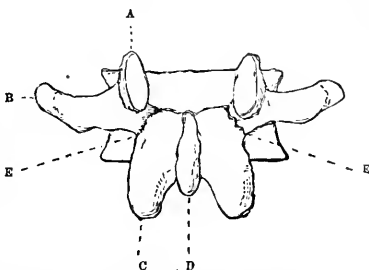
### ON A FRACTURE OF THE ARCH OF THE LUMBAR VERTEBRÆ.

Read before the Boston Society for Medical Improvement by JEFFRIES WYMAN, M.D.

THE separation of the arch of the lumbar vertebræ, here described as a fracture, is often noticed in the preparation of skeletons, but we have not seen it mentioned by either anatomical or surgical writers. Dr. Frank H. Hamilton, however, in the second edition of his treatise on fractures, in referring to an account of this injury communicated to him by the writer, states that it appears to be undescribed. Attention is now called to it because it appears to be a distinct species of fracture, though a comparatively unimportant one, and has characteristics as constant as those of the fracture of the neck of the femur or of any other bone which has received a specific name. The only fractures of the arch of the vertebræ described by systematic writers, are either through the laminae between the spinous and articulating processes, through the spinous process itself, or through the pedicle. The one before us takes place in quite a different direction, as regards the arch of the vertebræ, and has been thus far noticed only in the lumbar region, and, in consequence of the structural peculiarities leading to it, is likely to happen only in this region.

These peculiarities are as follows. In the dorsal region the arches are characterized by the breadth of their laminae, and by having the transverse processes implanted just between the articular ones, where, in consequence, the arch becomes greatly strengthened, in fact has its greatest strength. In the lumbar region the transverse processes are thrown further forwards, so as to rest more upon the pedicle, while the upper and lower articulating ones become more widely separated from each other, the lower ones being carried downwards, and the bone connecting them so contracted as to form a somewhat slender neck; thus the

part in question becomes the weakest instead of the strongest portion of the arch, as will be seen in the figure at the lines of



Fifth lumbar vertebra seen from behind. A, upper articulating process; B, transverse process; C, lower articulating process; D, spinous process; E E, neck and line of fracture.

fracture, E E. In a series of vertebral columns, however, this condition exists in different degrees; in some the neck referred to being quite strong, in others so slender as to be easily broken, and in others more or less intermediate in strength. When the neck is broken at the lower articular processes, the laminae and the spinous process become detached from the rest of the vertebræ, leaving the upper articular processes and the pedicle connected with the body.

In all the cases examined the fracture was either in the fourth or fifth lumbar vertebra, and remained ununited. The opposing surfaces of bone have the usual roughness, and in some instances the neighboring parts are the seat of irregular bony deposits. In two, the surfaces have been worn smooth by mutual friction. In a single instance the fracture existed on one side only. The elasticity of the neck on the unbroken side is such as to allow the broken surfaces to be separated from each other for the distance of half a millimetre, and to allow also some lateral motion.

To the seven cases of the fracture of the arch of the lumbar vertebræ formerly mentioned to this Society (Proceedings, Oct. 22d, 1862) four others may now be added,

all from Indian skeletons—viz., two, both of the fifth lumbar vertebra, from an ancient cemetery in Kentucky; and two, one of the fourth and the other of the fifth, both from the same individual, from an ancient cemetery in Florida.

The question naturally arises whether the condition we have assumed to be a fracture may not be considered an arrest of development, and consequently only a permanent separation of parts, distinct in the fetus, but which in the ordinary course of things become united in the adult. In answer to this objection it may be said, that the only place where a non-union of the arch might occur from such a cause would be either at the joining of the pedicle to the body, or on the median line when the laminae join each other. The fracture in question does not occur at either of these points, but at a place where no separation exists in the fetus at any period of development.

The causes to which the fracture might be ascribed are chiefly two; one, a forcible bending of the body backwards, and the second the shock resulting from falling or jumping from a height in such a way that the shock is transmitted from above downwards through the pelvis. In this last case, in consequence of the obliquity with which the vertebral column rests upon the sacrum, and the yielding of the intervertebral substance, the momentum of the trunk tends to displace the column forwards on the base of this bone. The chief resistance offered to such displacement would be from the lower articular processes of the fifth lumbar vertebra as they press against the upper ones of the sacrum. An analogous tendency to displacement would of course exist at the union of the other lumbar vertebrae with each other, which would be exerted in an analogous manner. As, however, the neck described above becomes stouter the higher up it exists, the greatest liability to fracture is in the lowest part of the column.

We know of no recognition of the existence of this fracture during life, and it is not probable that any marked symptoms would occur in connection with it other than those which might be ascribed to a severe strain.

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MADAME LA PHARMACIENNE.—A *pharmacie* has just been opened at Montpellier by Madame Deumergue, Bachelor in Science, this being the first establishment of the kind in France under the direction of a lady.

#### AMAUROSIS OF BOTH EYES FOLLOWING EPILEPTIFORM ATTACK.

By G. E. FOSTER, M.D., Springfield, Mass.

Mr. J. H., aged 35, by birth a Frenchman, by occupation a carpenter. Has always been a healthy man up to January, 1869, when he complained of severe pain in the occipital region, often coursing down the back as far as the third or fifth dorsal vertebra. He consulted a physician, and kept growing worse to the 27th of March, when I was called to see him. At that time he was having daily four (4) epileptiform attacks; bowels very much constipated; tongue covered with a deep yellowish-white coating. Upon the 28th, I gave him a cathartic, which unloaded his bowels thoroughly and cleared the coat from the tongue in a measure. The attacks then increased to six (6) a day, each attack lasting from twenty minutes to half an hour. I then began with the bromide of potassium gr. vi., fluid extract of valerian  $\mathfrak{z}$ ij., camphor water  $\mathfrak{z}$ i., three times a day, which had little effect upon the attacks; I then doubled the dose of bromide, which began to control the attacks, and on April 20th he was having only two attacks a day. The bromide was then increased to forty-five grains daily, when the attacks ceased; it was then discontinued, while the valerian and camphor were alone used. The appetite improved and the bowels became regular. About three weeks after, I was called to see him again, when he said that for two or three days he had suffered from pain in both eyes, and the vision was hazy; this symptom increased rapidly, and in five days he was totally blind. Upon the 24th of May I applied a blister over each eye, and sprinkled the raw surface with one third of a grain of sulphate of strychnia, allowing it to remain until the following day, when a fresh application was made. Upon the 2d of June I doubled the amount, and so continued to do each day until I reached five grains over each eye, when he could discern light. The quantity was increased to six grains, and in two and a half days his vision returned, as good as before. He has had no attack since the bromide was stopped, and has returned to work, feeling quite strong. He is now taking tartrate of iron and potash.

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At the recent commencement of the Cincinnati College of Medicine and Surgery, the degree of Doctor in Medicine was conferred on seventeen graduates.

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

APRIL 26th.—*Malignant Disease of the Liver; weight 16 pounds.*—Dr. COTTING reported the case.

I. C., aged 39 years, unmarried. Feb. 10th, 1869. Reported that she had been afflicted for about six weeks with soreness in region of stomach, with slight swelling of the abdomen, and some pain, which had now passed off. There had been also some constipation, which was relieved by aperients. Her catamenia had been irregular of late, and ceased last month. Her strength also had gradually failed. Her appetite was good; she ate the usual quantity, and generally retained it well. A few times there had been a little nausea, but never vomiting. Bowels regular now. Respiration quiet, easy, and undisturbed. Pulse rather feeble, 105. In hepatic region, a little to right of median line, a tumor projected forward, about the size of a small saucer, and somewhat tender to the touch—apparently a portion of, or connected with the liver. There was no jaundice. Urine rather thick and high-colored; passed regularly, with no abnormal indication other than a trace of albumen.

Feb. 21st.—Tumor much larger.

March 3d.—Lies on back. Cannot turn over to left without producing a "snap," accompanied with great distress in left side, at or near the edge of the ribs. Tumor extends below the navel on right and middle, and, diagonally upward, half across the left side; is roundish, elastic, with a semi-fluctuating feel, and tender on firm pressure in spots. No nodulation or irregularity of surface discoverable. Has had little or no sleep for two nights. Sat up in bed last night, as she preferred this position to lying on back with feet drawn up, the only other way tolerable. Moans much on dozing. Respiration easy, natural, 26. Pulse feeble, 96. Skin natural; no jaundice. Bowels regular; dejections "daily, and as natural as in perfect health." Appetite pretty good. Takes meat and other solids; nothing hurts. Sits up most of the day, and goes about the house, up and down stairs, &c.

March 23d.—Has taken to her room. When in bed lies on back; with much more comfort than previously. Respiration easy. Pulse 115. Has vomited several times

within a day or two. Has, besides normal dejections, frequent small, watery discharges by drops from bowels. Directed two fluid-ounces of citrate of magnesia. Tumor larger, extending quite to ribs of left side, with separate prominence and a division or sulcus between. The sensation of fluctuation very marked.

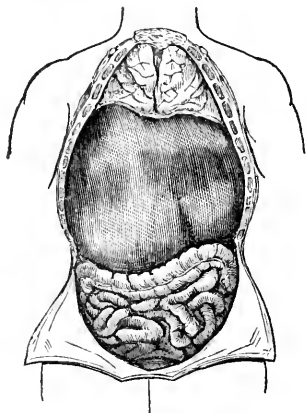
April 3d.—Vomiting, or rather regurgitation of food, has occurred occasionally, but not every day. Much exhaustion, but little pain of any kind. Generally sleeps a good deal, but last night not so well, with some pain, which was unusual. Magnesia produced very large dejections of normal feces. No dejection for two or three days past. Now, nodulated masses may be felt in right iliac region, probably accumulated feces. Urine thick, high colored, scanty. Respirations quiet, 24. Pulse very thready, 130, and even more on slightest exertion. Some sallowness; tending to jaundice. Swelling of feet has come on, and is increasing. General emaciation extraordinary. Tumor immense; somewhat tender over sulcus.

From this time she ran down rapidly, became astonishingly wasted; decidedly jaundiced; and, after remaining apparently moribund for a day or two, though conscious and without acute pain, she sank, and died at 3, A.M., of April 16th.

*Autopsy*, twelve hours after death, made and reported by Dr. John Homans.

"No rigor mortis. Extreme emaciation. Abdomen much distended. An elastic tumor, covered with peritoneum, and arching up to a height two and a half inches above the level of the ribs, extends from the epigastric region to below the umbilicus, and occupies both hypochondria; this tumor is the liver enlarged by very extensive encephaloid disease. The transverse colon, filled with soft feces, is pressed down into the pubic region. The stomach is much compressed in the posterior portion of the left hypochondrium, and cannot be seen without removing the tumor; it is apparently not capable of containing more than a pint of fluid. The diaphragm and lungs have been pushed upwards, so that the tumor reaches to the cartilage of the third rib on the right side and that of the fourth on the left, as shown in the figure on the next page. The parietal peritoneum of the abdomen is more or less adherent to the peritoneum covering the anterior surface of the tumor. The tumor, when removed, weighed, before being cut into, 16 pounds; weight of corpse, by estimate, being not over 90 pounds. Length

of tumor 10 inches, and its breadth 9. It had an elastic, semi-fluctuating feel, and on being cut into was found to be a cancerous liver in a state of advanced degeneration; but little of the hepatic tissue was left. Gall-bladder rather large, containing very green bile; ducts pervious. The abdominal cavity contains about twelve ounces of dark, offensive, bloody fluid and several large masses of coagulum, showing that there has been hæmorrhage from some vessel of considerable size. Heart flabby; white spot on right ventricle. Walls of pulmonary artery very thin. Other organs not remarkable."



Dr. JACKSON said Dr. Ellis had reported, some months since, a case supposed before death to be a cancerous enlargement of the liver; but at the autopsy this organ was found healthy, while a very large mass of cancerous disease was found behind it, exactly resembling the liver in the present case, at first sight. If it is, as it is said to be, degenerated encephaloid, some portions ought to be found that are not thus degenerated; but this tumor is homogeneous throughout.

Dr. J. HOMANS remembered that in Dr. Ellis's case the cut surface glistened with cholesterine, while in the present tumor there was none; the liver also contained cancerous nodules.

Dr. JACKSON, in answer to Dr. Coolidge, said he had seen primary malignant disease of the liver several times, and when there was no disease of the stomach; but both of these organs are very generally affected

when the liver is, and then it is impossible to say which was first affected. He had seen an encephaloid liver that weighed ten pounds, and that was the largest he had seen till the present one.

Dr. J. HOMANS had once seen a liver weighing fourteen pounds, but it was not cancerous, apparently hypertrophied.

To the remark of a member that in connection with the smallness of the stomach, it would be interesting to know about what amount of food the patient took, Dr. CORNING submitted the following account, drawn up and given to him by the family:—

"From the 10th of February to a fortnight of her death, she ate for breakfast, at 9 o'clock, a quail, two potatoes, a slice of toast, and drank a large cup of tea. At 11, a glass of wine and slice of cake for lunch. Her dinner, at 2 o'clock, consisted of half a 'spring chicken,' one—and sometimes two—baked potatoes, and two glasses of cider. At 7, a slice of bread, with two sardines, and cup of tea, and at 9 a glass of wine and piece of sponge cake, completed her diet for the day. This was the usual quantity; sometimes it was beef-steak, or venison, or grouse, in place of chicken—but little difference except in variety. She usually ate three or four oranges and one or two bananas during the day. Sometimes she would throw up her food, which was attributed to her having taken too much. But it caused no more effort than swallowing it. The following eleven days her food consisted of nearly a quart of porridge—quite thick—with cream, and the usual quantity of cake and wine. The next two days she took only two glasses of milk, each day, and about a pint of Bourbon whiskey, and the last day nothing but the whiskey."

APRIL 26th.—*A half-franc piece lying six weeks in the air-passages and finally ejected.* Dr. H. K. OLIVER reported the case.

A Frenchman came to him at the request of Dr. H. G. Clark. He had applied to Dr. C. in the belief that a French half-franc piece was lodged somewhere in the larynx, and Dr. C. desired that a laryngoscopic examination should be made.

The history of the case was as follows:—Six weeks previously, while suffering from a "gumboil," he applied the silver piece and a bit of zinc to the part, in the belief that he could dissipate the trouble by galvanic action. He sat meanwhile in a high chair with the head thrown back, and by some means the silver coin slipped from his fingers and fell into the throat. The bit of zinc he retained hold upon. The coin

seemed to him to have lodged in the larynx. There was, at first, not much cough or other troublesome symptom, but he could feel it moving up and down for the first two or three days, the feeling being referred to the larynx. On the third or fourth day and subsequently, difficulty of breathing and considerable cough were excited, whenever he lay upon his left side. These symptoms were relieved almost entirely by turning upon the right side, when he could feel the coin change from one side of the larynx to the other. Symptoms of a "cold" meanwhile came on, which, however, were mitigated during the ten days previous to his visit to Dr. Oliver. He had applied to several physicians besides Dr. Clark, to all of whom, as well as to Dr. Oliver, the symptoms seemed less grave than are usually seen under similar circumstances.

A laryngoscopic examination showed the mucous membrane of the larynx, including that of the vocal cords, considerably injected, but careful and repeated search failed to reveal any foreign body, either in the larynx itself or outside of it. The hyoid fossæ (the spaces between the wings of the thyroid and the lateral portions of the cricoid cartilages) were carefully investigated, as was also the entrance to the œsophagus. Particular care was also exercised in the search at the openings of the ventricles of the larynx. The bifurcation of the trachea was not seen. The patient, notwithstanding, insisted that the coin was lodged in the larynx, as all the unusual feelings were experienced there. It was evident, however, that the coin must be, if anywhere, lower down, and with the idea of dislodging it, the man was placed upon a couch with the head and chest depending over the side, so that the top of his head touched the floor. His body in fact was nearly perpendicular. In this position he coughed strongly, while repeated blows were made upon his back by Dr. Oliver. In a few seconds the cough became suffocative in character, and obliged him to assume the upright position. He insisted that while "on his head" he had felt something change position in his larynx, so as to choke him. A second attempt at coughing in the position above described produced the same effect, and the same feeling of obstruction was described by the patient. The same thing was attempted a third time, and immediately on regaining the upright position, the patient coughed the coin into his hand. It was a half-franc piece, was not particularly tarnished, and was covered with bloody mucus. On examination there was no ap-

pearance of blood anywhere, either inside or outside of the larynx.

It should be remarked that an examination of the lungs was made by Dr. Clark, who found none of the symptoms which might be expected to exist in the case of a foreign body in the trachea.

This patient reported to Dr. Oliver, a fortnight subsequently to the ejection of the coin, that he rapidly got rid of all the uncomfortable symptoms which he had previously suffered.

JUNE 14th.—*Rupture of a Retinal Vein from a blow on the head.* Spontaneous recovery. Dr. H. DERRY reported the case.

"Dr. —, æt. 37, called on me May 25th, complaining of defective vision of *left eye*. The evening previous, while rising from a stooping posture, he had struck this side of his head with some violence against a table. Floating spots were directly perceived, and the vision was soon ascertained to be impaired.

"I found the eyes externally normal. A moderate amount of myopia ( $\frac{1}{2}$ ) was present. Vision of the right eye was equal to unity, that of the left was only two-sevenths as great. On dilating the pupil of this eye, numerous dark particles were seen floating up and down in the vitreous. On bringing the optic nerve into view their source became apparent. Just where one of the veins passed over the edge of the disc was a little clot of blood partially obscuring its course; and on exchanging the monocular for the binocular ophthalmoscope, in other words using a stereoscope instead of a simple magnifying glass, this clot was seen to project out into the vitreous humor from a little rent in the side of the vein. This vessel had been ruptured by the blow on the head; hæmorrhage into the eye had at first taken place, until the further flow of blood was rendered impossible by the process of coagulation.

"Rest of the eyes was enjoined, and a pair of blue glasses given for the purpose of protection.

"June 3d.—I saw the patient again. The clot had entirely disappeared, vision had mounted up to two-thirds of the normal standard, and the vitreous was nearly entirely clear.

"This case is related as an illustration of the use of the binocular ophthalmoscope in the diagnosis of disease. The fact that two eyes are better than one does not seem to be as generally appreciated by observers as its importance deserves. It is certain in the present case that what appeared to the simple mirror to be a mere smooch of

blood overlying a vein, was discovered by the binocular to be a tangible plug projecting forward from the side of the vessel. By the substitution of one instrument for the other its level was instantly changed.

"Of such importance are changes of level in the study of ophthalmoscopic disease, so difficult are they (when slight) of detection in the ordinary way and so easy in this, that it is remarkable that the regular employment of the binocular ophthalmoscope should not have already become more general."

JUNE 14th.—*Facial Paralysis. Disease of the Temporal Bone and of the Brain.* Dr. Mixor reported the case.

The patient was a man, 28 years old, a pedlar by trade, who entered the Massachusetts General Hospital, May 12th. His father and mother were both phthisical. He was well till two years ago, when an abscess under the right jaw, owing to a carious tooth, was lanced. At the same time a discharge from the right ear began, which continued ever since. He was a little deaf in that ear. In October, 1868, after exposure to wet and cold, at sea, he had an attack of pleurisy, and ever since had a slight cough, with expectoration, which was occasionally specked with blood. On May 2d he took a long walk in the rain, and the next day found the muscles of the right side of the face to be paralyzed. On entrance, he complained of vertigo, and the facial paralysis was found to be complete. The whole body of the tongue, when protruded, was pushed over to the right side, but the tip could be freely moved from side to side. The right arch of the palate was higher and rounder than the left. The uvula was slightly inclined to the left. Shortly after entrance he complained of pain in the head, which continued to the last. Vomiting became an urgent symptom, and was followed by delirium. It was noticed that he sweat more on the right side of the head than on the left. He had one attack of hæmoptysis while in the hospital, and there were signs of tuberculous disease in the left lung. He died May 26th.

Dr. J. O. GREEN, Jr., who examined the temporal bone, gave the following account of the autopsy.

"Whole of petrous portion of right temporal bone removed. Meatus externus filled with thick, purulent discharge. Meatus internus filled with pus, and the dura mater around, for the distance of  $\frac{1}{2}$ ", dissected up, leaving the bone bare but not carious. On washing away the pus the facial and auditory nerves at their exit from the meatus

were distinct and apparently not affected. At the orifice of the aqueductus vestibuli, on the posterior aspect of the petrous portion of the bone, the dura mater was bulging for a space  $\frac{1}{2}$ " in circumference, and pus was exuding through a small opening.

"Lateral and petrosal sinuses not affected. No caries of the bone at any point.

"Roof of tympanic cavity unusually thick; this was removed and the cavity found filled with muco-purulent matter; the mucous membrane lining it was much swollen and of a livid color. Hammer whole and distinct, but no signs of sulcus.

"The cavity was then opened by sawing through the whole bone. The membrana tympani much thickened by hyperemia and swelling of the mucous lining, and perforated both anterior and posterior to the hammer, the anterior being the larger perforation; hammer normal and in normal position, but completely buried in the swollen mucous membrane of the drum.

"The mucous membrane on the promontory swollen, completely filling the depressions of the foramen ovale and foramen rotundum. No traces of the stapes, but this might have been torn out by the saw. Thick, adhesive, purulent matter exuded from both oval and round foramina, and the vestibule was entirely filled by the same. Cochlea opened by sawing through its pyramid, but to eye appeared normal, without pus. The meatus internus was opened by sawing through its longitudinal diameter: the facial nerve appeared normal, but the auditory nerve was discolored and surrounded by and infiltrated with pus.

"The Fallopian canal in its passage through the tympanic cavity seemed to be only a groove, no bony wall separating it from the cavity, and the facial nerve was here only covered by the swollen mucous membrane: the nerve appeared normal, and the inflammation had not extended into the Fallopian canal.

"The semicircular canals contained no pus and appeared normal.

"The mastoid cells were few in number, but all contained muco-purulent matter.

"A microscopic examination of that part of facial nerve taken from tympanic cavity showed no disorganization."

Dr. SAMUEL WILEY, President of the Minnesota State Medical Society, offers two prizes of \$50 each for the best essays—one on "Endemic and Epidemic Diseases of Minnesota;" the other on "Cerebro-spinal Meningitis."—*Cincin. Lancet and Observer.*



## Bibliographical Notices.

*The Principles of Naval Staff Rank; with its History in the United States Navy for over half a Century.* By a Surgeon in the U. S. Navy. 1869. 8vo. Pp. 240.

IN the pamphlet, of which the above is the title, the claims of the surgeons and other staff officers of the Navy to rank and pay commensurate with their terms of service, &c., are set forth in a clear and satisfactory manner.

The author is evidently well acquainted with the subject of which he writes, and has no doubt felt the force of the evils of which he complains.

The question of "rank" has been the source of annoyance and irritation to the staff ever since the establishment of the Navy, and no real, honest attempt has yet been made to set the matter at rest.

A general order may be issued by a Secretary of the Navy under pressure of circumstances, which seems to confer the honors of rank, but nothing can do so in reality and permanently but an Act of Congress. It is this which the "staff" of the Navy ask, and which the "line" oppose.

The opposition of the line seems to arise from two sources—one, from the untenable dogma that "rank gives command," and that conferring rank upon the staff would therefore tend to subvert the discipline of the service; the other, that the staff officer would claim the right of the cabin, and that the admission of too many to such privileges would tend to depreciate their value.

Now a surgeon may have the honors and emoluments of his office increased, and his position in the ship changed from poorer to better quarters, without giving him more command over any of the line than he now has. This need not give him any command whatever, except over other surgeons.

The claims therefore of the staff seem to be just ones, and Congress should see that they are not turned off unheeded. The lack of adequate pay and prospective honorable position already keep too many good men from entering the service. What encouragement is there at present for the young surgeon of ability to enter the Navy? Only this, that he shall always find himself out-ranked by mere boys of the "line," and never be able to get beyond the ward-room table—not a very promising prospect to an aspiring young man, whose younger brother, the midshipman, with less ability and effort perhaps, may in a few years be the

autocrat of the cabin in the same ship with himself.

It has even been proposed by some of the line to do away with altogether the medical department of the Navy, and merely employ surgeons for the cruise. But competent medical officers could not be obtained in this way—such cannot be made for the occasion; they must grow up to the requirements of the service, with as much exertion and study as a line officer, if not more. A plan like this, however, would give a good opening to recent graduates of uncertain standing, and unsuccessful practitioners of an older date—but the poor sailors, would they not need our pity?

The question of rank is of great moment to the well being of the Navy, and especially so to the staff at the present moment. On the 16th of March last, Mr. Grimes's bill, crushing the very life out of the staff, passed the United States Senate, and now lies in the hands of the naval committee of the House, to be acted upon probably in December next. The effect of such a bill, if passed, must be disastrous to all, and the "line" will rue it in the end equally with the rest.

To any one not acquainted with the merits of the case, the book before us will prove most instructive, as in it the whole subject is well and truly set forth—in what the staff have to endure and to fear; "what they want" and "what they do not want." Let it be read by all.

*A copy of this book should be in the hands of every member of the House and read by him before he votes on Mr. Grimes's Bill.*

c.

*A Manual of Elementary Chemistry.* By GEO. FOWNES, F.R.S., late Professor in University College, London. From the Tenth English Edition. Philadelphia: Henry C. Lea. 1869.

OF this standard work, nine editions have been published. The American re-print of the tenth revised and corrected English edition is now issued, and represents the present condition of the science. No comments are necessary to ensure it a favorable reception at the hands of practitioners and students.

DR. HOLLAND has been elected to the chair of Chemistry, in the Medical Department of the University of Louisville, made vacant by the resignation of Prof. Wright. Dr. David Yandell has been elected to the chair of Clinical Surgery.—*Richmond and Louisville Medical Journal.*

# Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 12, 1869.

## NOTES FROM FRENCH AND OTHER JOURNALS.

*Arterial Atheroma.*—The *Gazette Hebdomadaire*, in its sketch of the thesis of M. Lecorché, at *concours*, says that Virchow described, under the name of *chronic endo-arteritis—nodous or distortive*—the vascular inflammation which produces atheromatous lesions. To-day his view is generally received. And now M. Lecorché, after having stated those microscopic appearances of atheromatous lesions which all are familiar with, describes with care all the phases of this morbid process. The soft and the hard nodosities (gelatinous, cartilaginous or milky) are the expression of the inflammatory period, as is proved by the irritative proliferation of cells, and sometimes also of elastic tissue, which constitute the deeper layers of the internal arterial membrane. To this active period succeeds the period of degeneration, during which the atheromatous pustule supervenes as the product of the fatty degeneration of the tissue primarily irritated and in proliferation. The pustule contains, according to its greater or less age, either, on the one hand, cells infiltrated with granulations or with oily particles; or, on the other hand (the cells being destroyed), a detritus formed of cell *débris*, of free oil, of myeline, of *margarine*, of cholesterine in crystals, and sometimes of hæmatoidine. Never does the pustule [?] contain pus; and herein is one of the peculiarities of this form of chronic inflammation. Now if the pustule burst, its contents are diffused in the blood, and there remains a superficial ulceration, which is liable to spread. If the pustule maintain its integrity, a third transformation takes place, which, beginning with chemical decomposition of the fatty matter into fatty acids, goes on with the addition of lime to the formation, first of margarates of lime, then of carbonates and phosphates, and finally to complete petrification. The calcareous plate is now established. Sub-

sequently, the atheromatous pap is sometimes absorbed, in which case there only remains a sunken eschar. *Pari passu* with the occurrence of these phenomena, the tissue in the neighborhood of the pustule undergoes thickening by proliferation of connective tissue, which thickening may invade the middle and even the external tunic of the artery.

Chronic endo-arteritis should not be confounded with simple fatty infiltration, nor with diffused peri-arteritis, which are both very different processes.

The reviewer remarks that at the point where anatomy has arrived at a complete description of the facts, there reigns great obscurity as to the etiology, the symptomatology, and the consequences of chronic endo-arteritis; but adds that it would be unjust to deny the clinical progress of the question, which progress Mr. Lecorché has endeavored to put in relief in the second part of his work.

*Muscular Atrophy* is the subject of M. Ollivier's dissertation, sketched by the same hand as the preceding. A mere programme, it is said, is all that the present state of science affords relative to this question. Taking as the basis the physiological study of the nutrition of the muscles, for which function the circulation, and the innervation of, and the action proper to, the fibre, are the three fundamental conditions, M. Ollivier examines into the feasibility of a hypothesis of three categories of atrophy. These hypothetical categories are atrophy through disorder of the circulation, through disturbance of the innervation, and by perversion of local nutrition; a physiological classification which is quite logical, but which, says M. Ollivier, has one misfortune. It is not in accordance with the facts. Pathological anatomy is in no better position to supply the object sought, and it is clinical experience alone which enables us to separate instances of atrophy into different groups.

Two principal orders of atrophy may then be clinically set up—the physiological and the pathological. In the first are ranged those cases which result from suppression of function, from inanition, and from senility. The second order, i. e. the pa-

thological, is subdivided into the congenital and non-congenital. These last are arranged, according to the causes which produce them, as atrophy from general disorders (fevers, either acute or chronic diseases of the system at large, pernicious stimuli); atrophy from local causes (lesions of the muscles, of the bones, of the joints, of the vessels, of the central or peripheral nervous system, neuroses); and, lastly, as atrophy *causa ignota*—that is to say, progressive muscular atrophy, atrophy from infantile paralysis, and pseudo-hypertrophic paralysis.

As preliminary to the study of the preceding, the author commences by investigating the pathological anatomy of simple atrophy; and then goes on to a description of atrophy with granular degeneration, with the fatty and waxy degeneration of Zenker, with the *vitreous* degeneration of Cornil and Ranvier, &c. &c.

*Tincture of Paullinia*.—M. Stanislas Martin, in the *Bulletin de la Thérapeutique*, says that the *Paullinia*, which in Brazil, whence it comes, bears the name of "Guarana," is prepared by the Manheem Indians. According to Riadel, he says, it is a compound of tapioca farina, of cocoa and of paullinia seeds, made into a homogeneous paste, and dried in the sun. The names of medical men in Brazil are cited as having praised the drug as a tonic, anodyne and febrifuge. Dr. Martin's analysis showed it to be composed of glycyrrhizin, albumen, gallic acid, bitter resin, fatty matter, and vegetable (including woody) extractive matter. At Rio de Janeiro this substance is given in powder; or made into pills, pastilles, or tincture. Since 1846 it has had a place in French therapeutics, being employed in France in the form of powder or dissolved in alcohol. Dr. M. proposes the following formula for the tincture:—

R. Paullinia in impalpable powder,	100 parts.
Alcohol at 80 degrees,	250 parts.
Distilled water,	250 parts.

Macerate for fifteen days in a bath heated to ten degrees [centigrade], taking care to agitate frequently. Express, and filter through paper.

*Aconite in Tetanus*.—Wunderlich (*Bulletin de la Thérapeutique*) reports two cases  
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of recovery from tetanus under the use of aconite. A boy of 14 was the first case. The affection was traumatic. There was opisthotonos; contraction of many muscles, particularly of those of the face; convulsions of various character. The second case was that of a man 30 years old. There was general idiopathic tetanus—marked trismus and opisthotonos—muscular contraction and convulsions, as in the preceding case.

*Tetanus; Recovery under the use of Calabar Bean*.—The *Practitioner* quotes from the *Edinburgh Medical Journal* a case of traumatic tetanus from a punctured wound. The affection lasted twenty days, during the last seventeen of which the bean was taken. It is said that little effect was apparent till as much as a quarter of a grain was given every hour. There was great *thirst*, and an accumulation of tough and stringy mucus in the fauces and about the angles of the mouth; these symptoms being attributed by the reporter—Dr. Macarthen—to the action of the drug, on the ground that they are *not*, according to Sir T. Watson, a feature of tetanus.

*Tetanus; Recovery under Bromide of Potassium*.—The patient was a boy aged 12—the affection traumatic. Doubts are expressed as to the agency of the drug in the case, since the tetanic symptoms lasted five weeks, and the convalescence three weeks more. This case is also credited by the *Practitioner* to the *Edinburgh Med. Journal*.

MR. EDITOR,—My attention having been called to a statement made by Dr. E. Powell at the last annual meeting of the Illinois State Medical Society, and published in the *Chicago Medical Examiner*, Vol. X., No. 7, July, 1869, at page 407, to the effect that "he saw, a few years since, ether administered to a patient in the [City] Hospital at Boston, Mass., who died directly from the effects of the inhalation," I beg leave to say:—That I remember perfectly that on one occasion Dr. Powell was present in the amphitheatre of the City Hospital. I was operating on a patient, by Syme's operation, for perineal section. He became very seriously affected under the etherization; the operation was suspended; stimulants and artificial respiration were employed; the patient rallied;

the operation was resumed and completed without further etherization, and the patient subsequently lived *twenty days*, and died of pyæmia. He was found to have had a serious valvular disease of the heart. He was an old man, enfeebled by extravasation of urine. For the details I would refer to the Hospital Records, Vol. XV., p. 104.

As the statement of Dr. Powell was wanting in precision and void of fact, I have thought it right to place the whole truth before you. No case has yet occurred at the City Hospital of death from an anæsthetic. Sulphuric ether (Squibb's, or Powers & Weightman's) is the anæsthetic employed in this Hospital.\*

Respectfully, D. W. CHEEVER, M.D.,  
One of the Surgeons of the Boston City Hospital.  
Boston, August, 1869.

From Vol. XV., Surgical Records of the Boston City Hospital, p. 104 *et seq.* :—

"Feb. 18, 1868. Edward Boice, laborer, æt. 50, No. 1 Friend St. Ten years since contracted gonorrhœa. Five years ago had stoppage of urine. Three years ago had another stoppage, water coming away by drops greater part of the time, causing severe pain. Fourteen days ago began to be troubled with stoppage and increased pain, which produced great straining; to micturate was almost impossible. Eight days ago first noticed a small lump just anterior to the scrotum, which enlarged on straining (on under side of penis). Since that time the whole organ has been infiltrated, either by urine or serum, so that it was twice the normal size when seen to-day. About two inches of the base is as hard as a stick, the rest cedematous. Phymosis. The scrotum and perinæum are not affected. His urine had entirely stopped, so that he had not urinated for the last twenty-four hours. Bladder very much distended. In great misery.

"Seen by Dr. Cheever at 12, M., and it was found that the urethra was entirely closed about two inches from the meatus. Stricture very firm indeed. He punctured the bladder through the rectum, and drew off about two pints of urine. Removed the canula, and allowed it to dribble through into the rectum. Made three incisions in the base of the penis, and ordered him to be kept under opiates if in pain.

\* As we are about going to press, we would here say that we wrote to Dr. Powell, a week ago yesterday, asking him for further advice as to what he saw in the case he alludes to in "the Hospital in Boston, Massachusetts." His reply has not yet come to hand.—EDITOR, August 10th, 1869.

"Feb. 21st.—Etherized and placed in the lithotomy position. A sharp-pointed, grooved staff was passed into the urethra, but it was found impossible to insert it over an inch. An incision was then made down upon the urethra anterior to the scrotum, and the urethra laid open nearly two inches. This allowed the staff to pass along beneath the scrotum, but another obstruction and a false passage were found. At this time the patient became very feeble. Respiration stopped. Pulse very slow and feeble—at last it stopped. Place him upon his back, and by persevering in artificial respiration, by throwing both arms about the head and then down against the sides, succeeded in restoring patient to life. No more ether was given. An incision was made down upon the bulb, urethra found and opened, and an elastic catheter passed into the bladder and kept there.

"Evening visit. Good pulse, but slightly delirious. Water passes freely through the catheter.

"Feb. 22.—Passed a comfortable night and is rational now. Is comfortable. \* \*

"Feb. 27.—Rested very well during the night. Swelling of the knee increased. Effusion into the joint. Whole leg nearly to the hip more or less cedematous. Blush of knee and leg increased. Veins of thigh loaded. Complaints of pain in the knee. No chills or sweats. Wound in perineum and penis looks well.

\* \* \* \* \*

"March 12.—A very restless night. Hiccoughs and considerable pain. Abdomen very tympanitic and a slight blush just above the pubes. Pulse feeble. Appetite poor. Evidently failing. Emesis. Evening—Failing. But very little urine. Pulse feeble. Countenance pale. 10.40, P.M. Dead. Caused probably by pyæmia and peritonitis. No autopsy."

A true copy,

GEORGE B. STEVENS,  
House Surgeon.

REPLY TO A REVIEW OF DR. BUCKMINSTER BROWN'S BOOK ON ORTHOPÆDIC SURGERY.—A review of the work by Dr. Buckminster Brown on "Orthopædic Surgery" (read before the Mass. Med. Society, June 3d, 1868) appeared in the *New York Medical Journal* for July, 1869, which should not be allowed to pass unnoticed after the complimentary allusion made in this JOURNAL, Feb. 11, 1869. While speaking of the comparative merits of this work and the two recently published by Dr. Lewis A. Sayre, of New York, entitled "On the

Treatment of Club-Foot without Tenotomy," "Practical Manual of the Treatment of Club-Foot," the writer says:—"While it is not within the province of the reviewer to decide the controversy, he is still at liberty to point out anything in the works under consideration which may help to elucidate the point." "It appears certain that a very large proportion of recent cases are curable without tenotomy, and that in them the cure is more perfect and probably is no longer of accomplishment than if section had been made." This conclusion is not drawn from, nor can it be pointed out in any opinion expressed by Dr. Brown, as a reference to Case VI., page 9, will determine; and if from the works of Dr. Sayre, it is in strange contrast to that of the reviewer of them in the *St. Louis Medical and Surgical Journal*, July, 1869, who says: "The author himself is still a believer in the serviceability of the tenotome, and notwithstanding the pretensions title, he uses it in the very cases which he publishes to sustain his new position." In again objecting to tenotomy, the New York reviewer says "that as it only corrects the deformity without reaching the disease in paralytic cases, the cure demands muscular development, and if by reason of an advanced stage of disease this cannot be accomplished, the surgeon has cut away the chief support of the injured foot." Muscular development can be accomplished after tenotomy as well as before (of course waiting until there is union of the tendon), meanwhile supporting the foot by bandages for the short time necessary for that process. In fact, he admits that "where the disease is spastic, union of the tendon frequently re-establishes the disease." In regard to this point Dr. Brown says, on page 9, "The return of power to the paralyzed muscles I have frequently observed after division of the healthy muscles, which are structurally shortened in consequence of the normal balance of power having been destroyed." He calls Case II., which was one of paralytic calcaneo-valgus (the result of spina bifida), double varus, then criticizes the result; the error is obvious on inspection of the photograph. The unusual amount of flexion attained by the surgeon in Case III. (varo-dorsalis) and which must have been of great service to the patient in locomotion (as it was completely under his control), is designated flat-foot, "but with marked dropping of the heel, i.e. traumatic calcaneus." The result of Case X., is termed an accident, flat foot; to this comment we have nothing to offer, the photograph speaks for itself.

H. H. A. B.

GUBERNATORIAL APPOINTMENTS OF MEDICAL MEN.—The profession of this State are much beholden to his Excellency the Governor for the care and discrimination he has used in making his medical appointments. We speak advisedly.

OBITUARY. *Mr. Editor*.—The enclosed notice written by Dr. C. H. Allen, of Cambridgeport, came too late to be inserted in the forthcoming number of the "Medical Communications" of the Massachusetts Medical Society. Dr. A. desires that it be printed in the *JOURNAL*.

Truly yours, F. MINOT.

THE LATE JOHN APPLETON, M.D.—Dr. Appleton, a great-grandson of an early minister of Cambridge, was born in Salem, in 1809. He received his early education in Salem, and was prepared for college, but his father's death cut off the purposes he had formed of obtaining a collegiate education. On reaching his majority, he resolved to study medicine. He attended the Harvard courses of lectures, studiously fitted himself for the active and responsible duties of his chosen profession, and took his degree of M.D. in 1833.

He began practice in Newbury, Mass., and remained there twenty years. As an associate he was able to shed a genial influence upon those about him. He expressed his views distinctly and honestly, but kindly—indicating clearly his dissent, but keeping his mind open to conviction, even from those younger than himself.

As a man he was never selfish. He regarded the good of others rather than his own—so that he literally loved others better than himself. At twenty-two years of age he was strongly inclined to phthisis, and through life was feeble. His health was often impaired by too great exertions in his calling, and yet at such times he would not refuse to respond to the calls of sufferers in body or mind. He felt deeply for, and cheerfully visited them, even when he expected no pecuniary return. His genial smile, his ceaseless care, his intuitive perception of their wants and needs, secured the love and confidence of his patients. He was so gentle in his words, and so winning in his ways, that his presence in the sick room was no small means of cure.

Dr. Appleton's life was an active one. He was a hard student. The hours of midnight found him poring over his books, so that he was well versed in many sciences and languages, and he kept himself well

posted in the medical literature of his day. Whilst in full practice at Newbury, for fourteen years he daily visited Boston, and discharged very acceptably the duties of librarian to the Massachusetts Historical Society. \* \* \* \* \*

The later years of his life were ardently devoted to pursuits congenial to his tastes; and though he had not the advantages of a liberal course of studies at college, yet he had so strong a love of learning, that his spare hours through life were diligently spent in acquiring that knowledge of the languages and sciences which subsequently rendered his services so valuable. He had a talent for sketching, painting and designing. He performed admirably on the organ, and wrote some popular airs. He read Latin, Greek, Chinese, French and Spanish. Many years ago he gave lectures on Anatomy, illustrating them by diagrams of his own drawing. He was deeply versed in history, especially the early history of New England.

For fourteen years he was the highly esteemed librarian of the Massachusetts Historical Society, to which his various acquisitions were valuable in deciphering manuscripts, in developing language expressed in cipher, in ascertaining original sources of historic material, and in collecting and arranging for publication many articles relating to the early history of the Colonies. In these services he was truly a genius, and in these respects his place cannot easily be supplied. He retained his powers and desires for usefulness to within a few weeks of his death. He resigned his position as librarian of the Historical Society as a matter of sheer necessity, feeling that a hereditary disease was fast creeping upon him, and would shortly end his mortal life. He died at sixty years of age. Believing fully in a happy future life, and having implicit confidence in the Great Disposer of all events, he cheerfully relinquished extensive sources of enjoyment, ample pecuniary means, family endearments, pleasures of art and love of science, and quietly entered the life immortal. A.

THE HOMŒOPATHIC THEORY OF PIN-WORMS AGAIN.—*Droll*—To see the *New-England Medical Gazette* and the *Boston Journal of Chemistry* seriously contending over the respective claims of Mr. Haserick and Dr. Woodvine to the discovery of the *Homœopathic Theory of Pin-worms*. "When Greek meets Greek," &c.

MEDICAL ARISTOCRACY LECTURED.—*Amusing*—For an editor of a "lay" newspaper to presume to lecture the Medical Faculty for not recognizing as a co-ordinate school of medicine that heterogeneous mass of beings who call themselves "Homœopathsists."

What do these outsiders know about the matter? *Ne sutor ultra crepidam!* When the astronomer of to-day consents to treat the astrology of the past as other than a pseudo-science; when the chemist does the same by alchemy (or homœopathy we might add); it will be time enough for the scientific physician to think of recognizing those who profess (while they often ignore in practice, as they do their infinitesimals) the dogma that *like cures like*—a vagary resuscitated from former ignorance by modern folly.

MODERN HOMŒOPATHY.—The *Medical and Surgical Reporter* (Phila.) furnishes the following extract from the proceedings of the Cleveland Homœopathic Medical Society, recently held in that city:

"Dr. S. R. Beckwith asked if the members had any experience to report on the use of bromide of potassium in epilepsy; said it was a pretty sure remedy, given in *sensible* doses. He related several cases favorably affected by its use.

"Dr. P. Wilson reported, that late clinical reports had shown that in bad cases of epilepsy, it was safe to give as high as *sixty grains of bromide of potassium three times daily*; that such doses caused temporary insanity, which might be continued many weeks, and yet disappear on ceasing the use of the medicine."

The same Journal says, that the reports of the London Homœopathic hospitals show a decided partiality for similar "massive" doses.

THE CHILDREN'S HOSPITAL.—We were not able to be present at the Dedication of the Children's Hospital. Dr. H. H. A. Beach furnishes us with the following account of the Proceedings, and also a description of the Institution.

The dedication of the "Children's Hospital" took place Aug. 3d, at 11, A.M.; the exercises consisted of:—

Introductory remarks by Nath'l Thayer, President.

Reading selections from Scriptures, by Rev. Rufus Ellis.

Prayer, by Rev. Dr. Robbins.

Address, by Dr. Wm. Ingalls, containing a statement regarding the early history of the Hospital and a warm tribute to Dr. F. H. Brown (the originator), for the zeal displayed in executing the details of organization, and to the "Ladies' Aid Society," whose coöperation had resulted in such signal success.

Benediction.

The cozy little institution, which, before the preparation for these services, presented a very social and inviting appearance, was to-day made doubly attractive by the beautiful display of flowers. Many ladies and gentlemen visited the wards, and evinced great interest in the first quota of little sufferers. The first floor is devoted to the administrative department, and contains the "Reception" Room, "Business Office," "Dispensary," "Dining" and "Bath" Rooms. The medicines are dispensed from a very neat black walnut cabinet made expressly for the hospital. The other three floors are used for wards, which together contain thirty iron beds; the latter for a hospital deserve special commendation, as they are made very firm, of good height for dressings and are easily moved, having been finished with castors. They are all supplied with hair mattresses. The general appearance of the house may be well expressed in three words—neat, apt and thorough.

THE NEW CARNEY HOSPITAL IN BOSTON.—The hospital buildings are three in number—the chapel, a wooden dwelling-house, standing where the site of the main portion of the new building is to be, and a wing of the new building; the latter is used for adults, and the wooden structure for children. On the first floor of the wing are the rooms used for consultation, reception (containing an oil portrait of Mr. Carney), the dispensary (arranged very neatly), and the kitchen, which is only placed here temporarily, as it is intended to have that department occupy the first floor of the main building. The second is occupied by eight well furnished rooms for private patients with separate refectory, bath rooms and water-closets. In the third story, are two large wards, one for medical, the other for surgical male patients; and in the next story is the same arrangements for female patients. Bad cases will not be allowed to disturb other patients, but are assigned to separate apartments. Above, are sixteen rooms for old people who may not be sick,

but come here for a home. The chapel is situated directly in the rear of the grounds for the main building. It is finished in an elegant manner, and will accommodate two hundred people. The altar will always attract attention, being beautiful in design and executed in a superior style. Its cost was in the neighborhood of \$7000. Five very handsome stained glass windows add much to the appearance of the interior. The buildings appear to be constructed in the most thorough and substantial manner—comfort having the precedence everywhere over elegance. The wards and private rooms are all very high, well ventilated and heated by steam. The location of the hospital cannot be surpassed, for the important advantages of height of ground, light and pure air. Separate elevators for food and clothes connect the wards with the kitchen and laundry. The nursing is done by nine Sisters of Charity under the direction of a Sister Superior; their apartments and refectory are situated beneath the chapel. The hospital is now receiving charity patients.

DR. A. M. POLLOCK in the *New York Medical Journal* claims for the Wire Loop, that it promotes

- "1. Union by first intention *more frequently*.
- "2. Secondary Hæmorrhage *less frequently*.
- "3. Equal facility in application.
- "4. The foreign body can be removed from the wound at pleasure.

"I am satisfied from my experience that, if it were only on an equality with the organic ligature in all other respects, except the facility with which it can be removed, it should have a decided preference."

The loop is described in

"CASE II.—December 28, 1860. J. A., Findley township, Allegany County, farmer, aged fifty-four. Senile gangrene, line of demarcation a little above middle of leg; much emaciated and very feeble. Selected the thigh as the proper place to amputate, on account of less danger of the disease attacking the stump, as it was supposed the circulation would be better there than at a lower point. The limb was removed, under the influence of ether, by the flap operation. The femoral artery was not ossified, but cartilaginous. Only one ligature was required, which was applied by passing a long straight needle, armed with iron wire, from the cutaneous surface of the flap through on one side of the artery, and about half an

inch from its cut extremity, and back again from the other side of the artery to the cutaneous surface, about the fourth of an inch from the point of entrance. The needle was then cut off, and the ends of the wire passed through Bozeman's wire-twister, and, after making sufficient traction to arrest the flow of blood, was secured by a few twists. The flaps were securely and accurately held together by numerous pins and gum-loops. On the eighth day the loop was removed, and there was union throughout the stump."

"The method of applying the wire loop has been described in Case II., but for one not familiar with the procedure, two needles would be used more readily. They should be fixed on each end of the wire, and passed from the cut surface of the flap, on opposite sides of the artery, to the cutaneous surface. A slim needle four or five inches long, with a cutting-point, will answer for all cases, and can be passed with the utmost ease. I prefer, however, a needle of the same dimensions without a cutting-point. A good steel drawing-needle answers every purpose, and with a needle of this description there is less danger of wounding a vessel which may be in its track. I never disturb the artery in its relation to the surrounding parts, but pass the needle close to its walls, about half an inch from its cut extremity, avoiding, when practicable, the nerve and vein. However, I have frequently included considerable muscular tissue in the loop, and occasionally the nerve and vein, without unpleasant consequences. The points of emergence on the cutaneous surface should be from one fourth to one third of an inch apart, and, after making sufficient traction to arrest the flow of blood, the ends may be twisted together, knotted together, or tied over a small cylinder of gutta percha, or a bit of wooden pencil. If the latter method is adopted, the cylinder should be two or three inches long, to distribute the pressure over a larger surface, and it should be enveloped in lint to prevent excoriation."

**A CASE OF NIGHT BLINDNESS, FROM WORMS IN THE INTESTINAL CANAL, SUCCESSFULLY TREATED.**—By EDWIN C. LEEDOM, M.D., of Plymouth, Montgomery Co., Pa.—Several weeks ago a laboring man from Whitemarsh Township, called at my office with his son, a boy of seven years of age, for whom he wished me to prescribe. He stated that the boy was going to school, that he had no difficulty in learning his lessons, and that he got along very well through the day,

but that as soon as night came his eyesight failed, so that he could not discern objects; that he would run against tables, chairs, and other things, that it was dangerous for him to move about, and that he was afraid that the boy would become totally blind.

There was no indication of disease about the boy. Indeed, he looked sturdy and robust. His eyes presented no peculiarity. Upon taking him to the window, the pupils probably did not contract quite so much as they do in persons whose eyes are unaffected. But I could not be certain that there was much difference.

Upon making particular inquiry, I ascertained that he exhibited, at times, some of the symptoms of worms. Therefore, I concluded to commence the treatment by giving some anthelmintic, and I prescribed as follows: *R.* Pulv. spigel. mariland. ʒj.; Divide in chart. vi. One of these powders to be given to the boy three times a day for two days in succession, and to be followed on the morning of the third day by six grains of calomel.

I requested the father to call again in about a week, but I saw nothing of him or his son until a short time since, when the man called on me, and stated that the boy, after he had taken the medicine, discharged a great number of worms, some of which were of very large size, and that his eyesight had returned; that he had tested it in various ways, and that it was as perfect as ever.—*American Journal of Med. Sciences.*

**A GRATIFYING APPOINTMENT.**—Readers of the Journal will recollect that a year or two since we spoke highly of the efforts of Rev. E. O. Haven, D.D., LL.D., President of the University of Michigan, for his powerful and unanswerable argument against the introduction of a homœopathic chair into the medical department of that Institution. The profession of the Northwest owe him a debt of gratitude for warding off, for the time being at least, so foul a disgrace from a medical college. We are gratified, exceedingly, in noticing that he has been elected President of the Northwestern University, at Evanston, our beautiful neighboring suburban town. He has resigned his position at Ann Arbor, and will soon enter upon the discharge of the duties of his new position.—*Chicago Medical Journal.*

**BIOSTATIC IMMUNITES OF THE JEWS.**—M. Legoyt terminates with the following conclusions an elaborate paper which he re



cently read at the Paris Statistical Society on "Certain Biostatic Immunities of the Jewish Race in Europe:"—

"The facts which are here collected, and which are nearly all derived from official sources, are almost unanimous in demonstrating that the Jewish race is distinguished from the other European races, in a biostatic point of view, by the following phenomena:—1. Its general fecundity is less. 2. So is it, at least as a general rule, with regard to its legitimate fecundity. 3. It is especially so in relation to its natural or illegitimate fecundity. 4. In an equal number of births, there are fewer children born dead, which indicates that the Jewish woman passes through her period of gestation more favorably than the Christian woman. 5. But the most remarkable privilege of the Jews is, without contradiction, their relative low mortality, and that even when they are members of the lowest classes of society. This lesser mortality is not (and we cannot too much insist on this point) the natural consequence of a lesser fecundity, as, with an equal number of births, they count fewer deaths, and that by calculating on Halley's method—that is, in supposing the births equal to the deaths (taking place at the same ages)—it is found that they have a mean and probable life which is longer than that of the autochthonic races. It would not be correct to say that this difference in mortality is due to a large relative preponderance of adults, since in Prussia, which is the only country in which this portion of the population has been enumerated by age, there is found to be a greater number of children in it than in the Catholic and Evangelical population. 6. We have, moreover, seen that, as a consequence of this characteristic physical aptitude, the Jewish race becomes acclimatized everywhere, and propagates itself under every latitude. 7. Finally, we have shown that the Jews are possessed of a special aptitude enabling them to struggle against infected media, and protecting them against contagious diseases."

After discussing the various explanations of these immunities offered by different observers, M. Legoyt states that he believes the greater longevity of this race may be explained by the following considerations: 1. The Jews marry earlier than the Christians, and thus derive at an earlier age the advantages which statistics show are incident to the married state. Still, from their well-known prudence and circumspection, it is not to be supposed that they enter upon this until prepared to meet its exigen-

cies. Among them hasty and rash marriages, which are alike hurtful to the health of parents and children, are rare. 2. The fecundity being less, they can pay much more attention to the preservation of their children. 3. By reason of the small number of illegitimate children they have, they escape the exceptional mortality which sweeps away such children. 4. The Jew does not pursue any calling which demands very hard labor. He is neither an agriculturist, a laborer, mechanic, sailor, nor miner. Before all things, he is the shop-keeper, merchant, banker, artist, *savant*, man of letters, or public functionary. 5. The Mosaic law contains ordinances which, being purely hygienic, must exercise a favorable influence on the health—*e.g.*, the verification of the condition of slaughtered animals, the frequency of ablution, the practice of circumcision, and the separation from the husband until a week after menstruation, etc. 6. The strength of the family feeling among the Jews. It is only when it is absolutely impossible, and without distinction of rank, that a Jewish woman does not suckle her child. The children, too, are the objects of incessant and most vigilant care, which indeed is returned by the respect and solicitude which these manifest for their parents, especially when aged or infirm. This is probably one cause of the rarity of suicide among the Jews. 7. The sobriety of the Jews is incontestable. 8. Throughout the entire Jewish community, a warm feeling of charity for the indigent and miserable prevails. 9. The religious Jew is remarkable for his great serenity of mind, and his deep-seated faith in Providence and the high destinies of his race. The constancy, the *pérennité* of the Jewish temperament, is well reflected in his religious faith, which has remained immovable for so many ages. 10. The morality of the Jews, as deduced from criminal statistics, seems to be real, and is only an indication of those regular habits of life which exercise so great an influence on the duration of life."—*London Medical Times and Gazette*.

ICE IN AFFECTIONS OF THE TESTICLE.—Day (*The Annales*) employs ice in some of the affections of the testicular apparatus: 1st, In orchitis, sometimes complicated by blennorrhagic epididymitis, he finds it serviceable; 2d, In testicular neuralgia; 3d, In certain states in which pain continues the predominant feature.—*Dublin Medical Press and Circular*.

## Medical Miscellany.

**MEDICAL HOSTILITIES IN DOG-DAYS.**—The heated term has been rife with deeds of personal violence. It has also filled various medical journals with warlike words, indicating lesions of the *calamus scriptorius*, which, if not productive of "sanguinary (sanguineous) effusions" (vide "corpora testiformia," JOURNAL of April 15th), would seem to be capable of giving fits equal to the Guinea-pig convulsions of Brown-Séquard.

We learn that Dr. J. W. Graves, having been appointed Superintendent and Physician to the Lowell Hospital, has resigned the like situation at the U. S. Marine Hospital, Chelsea, which he has held for several years past. He has accepted the appointment at Lowell, the city of his former residence.

**DEATHS IN THE CITY OF PROVIDENCE, R. I., DURING THE MONTH OF JULY, 1869.**—Whole number, 125. \* \* \* \* \* We are treated at this season of the year with the usual amount of cautions in the newspapers against the use of fruits and vegetables, and are called upon to believe that the increase of mortality which always occurs, during hot weather, is almost wholly caused by eating them. It is quite likely that eating unripe and wilted fruits and vegetables causes disturbance in the stomach and sickness; but it is of a temporary character, and would generally cure itself if no other cause was present. It is quite well to use caution in the selection of fruit and vegetables, avoiding those that are wilted and decayed, but it is not well to be unnecessarily troubled and frightened about them, and it is still worse to avoid them altogether.

The slightest examination of the causes of death given above, shows that fruit and vegetables had almost no influence whatever in the mortality reported from summer complaints. Nearly all the decedents from these causes were very young children who do not eat fruit and vegetables at all. All but five of the decedents from summer complaints, in July, were under two years of age, and only two of the whole number were over four years of age.

In certain seasons, when epidemic cholera may be present, and when the systems of the people may be prepared for disease by the poisoned air they breathe, it may be possible that wilted fruit and vegetables may be the exciting causes of fatal sickness; but even then the air that is breathed is more truly the cause of death than the food that is eaten. In ordinary seasons, when no epidemic is present, impure air causes a thousand fold more mortality than fruit and vegetables. In fact, it is probable that total abstinence from fruit and vegetables by the whole community would produce more fatal sickness than the most unlimited indulgence in them. The safest rule is, however, temperance in all things.

EDWIN M. SNOW, M.D.,  
Superintendent of Health and City Registrar.

**DEATH FROM SNAKE-BITE AFTER INJECTION OF AMMONIA INTO THE VEINS.**—We make no

apology for extracting from the Sydney papers the following particulars relative to a case of fatal snake-bite:—"The woman who died at Vaulase, near Sydney, on Wednesday morning, Feb. 24th, from the bite of a black snake received on the previous Monday, was subjected to Dr. Hallford's remedy of injecting ammonia into the veins. The application was made some hours after the bite had been inflicted, but the unfortunate victim did not rally. Mr. Fisher was indefatigable in his efforts to counteract the effects of the poison, and it was hoped up to Tuesday night that the woman would recover. Drs. Nathan and Walker attended and applied the injection of ammonia. On the certificate of these gentlemen, it has been decided that no inquest is necessary; but in view of the peculiar interest of the case, we think the absence of a coroner's inquest is much to be regretted."—*Sydney Empire*.

The *Sydney Morning Herald* states "that Mr. Fisher scarified the punctures and then applied ammonia and ipecacuanha to the wounds, putting a ligature above the hand (the part bitten); ammonia and brandy (in what quantities is not stated) were also administered at intervals, and the woman was kept walking about for some two hours. At this stage Drs. Nathan and Walker arrived, and took charge of the patient, whom they considered to exhibit favorable symptoms, and on the day following she was thought to be out of danger."—*Australian Medical Gazette*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted:—Report of Cases at City Hospital—Safety-valve Function of the Right Ventricle—Uterine Displacement as a Cause of Exophthalmic Goitre—Water Melon vs. Diarrhea.

**DEATHS IN BOSTON for the week ending August 7, 1869.** Males, 84—Females, 70.—Accident, 4—apoplexy, 3— inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 4—bronchitis, 7—cancer, 1—chlorosis, 1—cholera infantum, 43—cholera morbus, 1—consumption, 26—convulsions, 2—diarrhea, 5—diphtheria, 1—dropsy, 2—dropsy of the brain, 1—dysentery, 3—erysipelas, 2—bilious fever, 1—scarlet fever, 3—typhoid fever, 2—gastritis, 1—disease of the heart, 8—homicide, 1—infantile disease, 2—intussusception, 1—disease of the kidneys, 2—congestion of the lungs, 2— inflammation of the lungs, 2—marasmus, 6—old age, 1—paralysis, 2—premature birth, 1—puerperal disease, 3—rheumatism, 1—scalded, 1—scrofula, 1—disease of the spine, 2—suicide, 1—synovitis, 1—teething, 1—ulcers, 1—unknown, 3—whooping cough, 1.

Under 5 years of age, 88—between 5 and 20 years, 9—between 20 and 40 years, 25—between 40 and 60 years, 18—above 60 years, 14. Born in the United States, 113—Ireland, 34—other places, 7.

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## Original Communications.

### IS THE SAFETY-VALVE FUNCTION OF THE RIGHT VENTRICLE SOMETIMES THE CAUSE OF A TRANSIENT SYSTOLIC MURMUR?

By F. I. KNIGHT, M.D., Boston.

As long ago as 1837, Mr. T. King, in *Guy's Hospital Reports*, vol. ii., p. 104, called attention to the fact that, if in a heart we expose the mitral and tricuspid valves by cutting away the auricles, and then, having removed the semilunar valves, inject fluid simultaneously with considerable force into the ventricles, through the aorta and pulmonary artery, the mitral valve will effectually prevent the passage of any of the fluid, while a certain amount will pass through the tricuspid.

Prof. Austin Flint, Jr., referring to this fact, says:—"The advantage of this slight insufficiency is apparent on a little reflection. The right ventricle sends its blood to the lungs, where, in order to facilitate the respiratory processes, the walls of the capillaries are very thin. The lungs themselves are exceedingly delicate, and an effusion of blood, or considerable congestion, would be liable to be followed by serious consequences. To prevent this, the right ventricle is not permitted to exert all its force, under all circumstances, upon the blood going into the pulmonary artery; but when the action of the heart is exaggerated from any cause the lungs are relieved by a slight regurgitation, which takes place through the tricuspid valve."

This physiological fact has thus long been recognized, and was even before suggested by John Hunter and Mr. Adams; but it has never, as far as I know, been thought to be of any clinical importance.

But it seems to me that this normal regurgitant current may sometimes be the cause of the murmur in those cases in which after death we fail to find the expected cardiac lesion. A loud, transient systolic murmur, evidently produced in the heart, and not in the large vessels leading from

the heart, is not unfrequently heard in cases of acute rheumatism, in fevers, in inflammatory diseases generally, and after violent exercise in health, when the circulation is much accelerated, and this when no organic lesion can be found after death.

It is unnecessary to bring forward any proof of this statement, for cases of the kind have occurred in the practice of every physician.

The most notable cases in this connection are those where the murmur exists during some embarrassment of the pulmonary circulation, but disappears when the circulation is relieved, and appears again and again as the pulmonary circulation is seriously interfered with. For instance, in a case of ascites this murmur has been known to disappear after paracentesis, and appear again with the accumulation of fluid.\* And again, in a case of chronic bronchitis, with dyspnoea, which is so much increased by lying down, the patient presented a murmur over the heart while lying, but none while sitting up.

The left ventricle has always been considered the seat of the murmur, and it has been accounted for in two ways:—

1. By deficient or irregular contraction of the papillary muscles, as in chorea.

2. Walsh says, by "disordered innervation of the auriculo-ventricular valves," they are provided with sympathetic filaments, why may they not palpitate as well as the aorta?"

It is probable that both of these conditions do sometimes obtain, but they are not sufficient, in my opinion, to cover all cases, and we have very little reason for supposing that "an altered condition of the blood" will account for the murmur.

If the question is asked why it is necessary to refer this murmur to the left side of the heart, the reply will be made that it is heard loudest near the apex, and therefore must belong to the left side of the heart. Now I think that the point of greatest intensity will often be found over the body of the heart. Physicians are so ac-

\* Elliotson, quoted by Hope (1st ed., p. 375).

customed to refer a systolic murmur evidently below the aorta to the mitral valve, that it becomes a matter of routine to say "loudest at apex." But I am not sure even that a tricuspid murmur may not sometimes be heard loudest very near the apex of the heart.

We have been accustomed to examine just above the ensiform cartilage for tricuspid murmurs, and do sometimes find them of greatest intensity there; but I do not think it settled that this is the seat of their greatest intensity, even in a majority of cases.

Again, it has not unfrequently happened that when there has been organic disease of this valve, associated with lesion in the left side of the heart, no murmur has been recognized as tricuspid, because none was heard with greatest intensity near the ensiform cartilage, when not improbably there may have been a murmur, originating at this orifice, so mingled with the mitral at the apex as not to be distinguished from it.

So often has this murmur *seemed* to be wanting, that some writers have said that organic changes at the tricuspid orifice do not necessarily give rise to murmurs. But I do not consider it by any means settled where we *may* or where we *may not* hear a tricuspid regurgitant murmur. The murmur in question is sometimes heard over the body of the heart, and, as far as position goes, I think may originate at either auriculo-ventricular orifice.

What other objections besides that of the place of its greatest intensity might be raised to its being due to tricuspid regurgitation? It might be asked, "would the regurgitant stream, even allowing it to exist, give rise to a murmur unless there was some affection of the valve?" I see no reason why the valve should not vibrate as this regurgitant current passes over it; and we know that in dilatation of the left ventricle following aortic disease we not unfrequently get a murmur from mitral regurgitation, where after death we find no disease of the mitral valve. Again, it may be asked, "would there not be pulsation of the jugular veins if there was tricuspid regurgitation?" Yes, if there is very free tricuspid regurgitation we do get pulsation of the jugulars, but it is not necessary to suppose that the slight amount of regurgitation essential for the protection of the lungs would cause it.

NOTE.—The preceding remarks were made by me at the meeting of the Suffolk District Med. Society in September, 1868.

In an interesting article "On Functional

Valvular Disorders of the Heart," in the *American Journal of the Medical Sciences* for July, 1869, Dr. DaCosta, in discussing the murmur which was the subject of my remarks, says:—"We find that it is most likely to be generated at the auriculo-ventricular orifice on the left side." "The proof of (this) is afforded by its site, which clinically corresponds more closely to the mitral orifice than to any other part; and this seems to me, too, to be a strong point against supposing the blowing sound to be due to tricuspid regurgitation."

It does not seem to me that the site of the murmur furnishes conclusive proof that it is generated at the auriculo-ventricular orifice on the left side. Dr. DaCosta says: "The more carefully I have kept my notes the more distinctly I find it stated that it is not an apex murmur, strictly speaking, but rather occurs above the apex, more over the body of the left ventricle." Of course it must be over the body of the right ventricle also, which lies directly in front of the left. This is considered by Dr. Gairdner and others as the region of tricuspid murmurs, i. e. the right ventricle where it is least covered by lung. Dr. Flint says:—"In two instances of tricuspid lesions not associated with lesions affecting the left side of the heart, which have come under my observation, a soft and feeble systolic murmur was limited to the superficial cardiac region."\* By the *superficial cardiac region* he designates that region where the heart is uncovered by lung.

#### WATERMELON vs. DIARRHŒA.

By S. G. WEBBER, M.D., Boston.

At this season of the year an opportunity may be afforded of testing the value of certain fruits as remedial agents. It is a popular notion that blackberry jam is a valuable means of combating slight attacks of bowel complaint. Whortleberries, the low bush, sweet variety, are considered by some to possess similar properties, or at least not to be contra-indicated. On the other hand, a doctor friend thinks he has seen dysentery caused by the irritation produced by the seeds.

I do not, however, find that people generally look upon watermelon as a desirable article of food when the bowels are loose. Several cases have come to my notice where that fruit seemed to be of benefit. Any one who has indulged in it may have

\* On Diseases of the Heart, p. 214.

observed its powerful diuretic properties, which are not dependent upon the amount of water ingested, for the same amount of clear water does not cause so copious an evacuation of urine.

This diuretic property of the fruit is an indication in favor of its use. The fruit is also notoriously cooling and refreshing. May it not derive this quality, and also its diuretic power, from a vegetable acid or salt, by virtue of which it has a general sedative action?

What has been said refers to the ripe fruit in good condition; if it is not perfectly ripe, or if fermentation has commenced, of course injurious consequences may follow its use. Also the largest melon is the best, if it is ripe and fresh. A generous supply is necessary to obtain the curative effect. In two or three cases which have come to my knowledge, the fruit was eaten *ad libitum*. One of these, a gentleman, is in the habit, when troubled in summer with a commencing diarrhœa, of eating largely of the best and largest watermelon he can find; he says it invariably checks the diarrhœa, which afterwards gives him no more trouble.

A lady had suffered from a diarrhœa, which was growing worse; she had decided to take medicine in the afternoon. At dinner she eat watermelon, and thought no more of the diarrhœa. She had one passage after dinner, eat watermelon again at tea, and was afterwards entirely free. Usually, she says, it is necessary for her to take medicine.

A medical friend mentioned to me that he had seen the beneficial effects of watermelon in his own experience.

Will others give an account of their experience in this respect, or try the value of this remedy. It would certainly be one of the pleasantest medicines we could prescribe to tell our patients to eat as much watermelon as they desire. Would it not, too, be a refreshing and beneficial diet in cases of fever or feverishness? We give lemonade and neutral salts, why not give watermelon?

This subject brings to mind another of kindred nature. Many persons have a horror, a dysenteric dread of fruit; they never eat any themselves, nor do they allow their children to have any. Is this consistent with perfect health? Do we not need and crave during warm summer weather the acid contained in our summer fruits? It seems not unreasonable to suppose that where all fruits are shunned, the system may acquire unhealthy tendencies and

really be less able to resist injurious influences, and so there may be more liability to derangement of the *primæ viæ*. Another view worthy of consideration is that children have this craving for fruit, and if it is not gratified at home, they will indulge in unwholesome fruit, unripe or fermented fruit away from home; whereas if ripe, fresh fruit is furnished on the home table, they are not likely to partake of other—they will prefer the good to the green and rotten.\*

## A CASE OF MOVABLE CARTILAGE IN THE KNEE-JOINT.

Read before the Middlesex East Medical Society by the late Dr. BENJ. CUTLER, of Woburn.

[Communicated by Dr. E. CUTLER.]

On the morning of Christmas day, 1845, I visited Thomas Brydon, an Irish laborer, aged 25 years, and found him in bed with a lame knee which wholly prevented walking, and was by the patient ascribed to rheumatism. The knee was somewhat swollen, and had troubled him in the same way, at times, about eight or ten years.

On examination, ascertained the existence of a movable body within the cavity of the knee-joint. The foreign body was small, and by manipulation was displaced from its position between the femur and tibia, so as to allow free movement of the joint. After explaining the nature of the difficulty to the patient, he went, as he had intended, to spend his Christmas in Boston. Eight days after, he called and said he had consulted at Boston with an Irish Doctor, who prescribed blisters to the knee, which had been done. Being satisfied that this treatment would not avail, he wished to have the operation performed. Accordingly, prescribed a purge, a vegetable diet, and rest, and three days after, January 5th, 1846, visited him, and found the loose body on the outer condyle, side of the joint; succeeded in moving it to the other side of the patella to the inner condyle and the spot I wanted to fix it in. Had him undressed, placed on a straw bed, the loose body *securely* held in place by the assistant (Ephraim, æt. 13), by an opened scissors bow; an incision, an inch long and deep, was sufficient to give exit to the foreign body.

Before the incision was made, the cutis

\* *Cave canem!* The exclusion of the unripe and wilted fruit should be insisted on in the interest, at least, of the doctor. The spoiling of our sleep in summer time has most often been caused by cases of "purging up and down," from eating watermelons—in bad condition they were, we have generally believed; though for obvious reasons the point was difficult to ascertain.—ED.

was drawn up, so that, after the removal, and the skin was allowed to resume its usual place, the cuts in the capsule and the cutis did not correspond. Very little blood or synovia escaped. The cut was dressed with adhesive plaster, on which was applied a small compress of cotton-battling, and swathed tight with a roller bandage. Wet the whole with cold water, and applied a piece of ice thereon. His pulse was 60, and full. Enjoined perfect rest, and liquid farinaceous food. The body removed was of an irregular roundish form, about the size of a kernel of green Northern round maize. One side cartilaginous, and smooth, the other uneven, and osseous; was not attached anywhere, as they sometimes are found.

The operation was performed at 2, P.M. Saw him at 9, P.M., and learned that considerable pain for two or three hours followed the removal, which now had mostly subsided; knee sore, leg too warm, countenance serene and quiet, pulse 60. Wet the dressings with tinct. opii and applied ice. Insisted on perfect rest and quiet; did not loosen the bandage.

Jan. 6; 10, A.M.—Pulse 56. Slept well through the night; quiet this morning. Took off the roller bandage, and cotton compress, and found no blood from the wound, no swelling of the knee, and no pain on slight pressure. Bled him from the arm 16 ounces, and put the tailed bandage over the knee. At 6 o'clock, P.M., pulse 60, and all things remain quiet.

Jan. 7; 11, A.M. Pulse 68. Last night slept five or six hours, besides sleeping some yesterday. Find him generally warm all over, especially his leg and knee. The joint somewhat distended with synovia, none of which has escaped from the cut, and the adhesive plaster remains tight. No application has been made to the knee through the night, his wife having slept. Bled him 30 ounces and wet the bandage with ice-water. After bleeding, the pulse was 72, and faintness and weakness followed for some time. Diet, thin gruel, milk and water, no thirst. One dejection yesterday. 6, P.M. Pulse 72. Less heat than in the morning before being bled. Knee some swelled, and itching. Wet the bandage with tinct. opii, and directed snow to be applied if heat continues. Has not suffered pain in the knee since two or three first hours after the operation.

Jan. 8; 9, A.M. Pulse 68. Slept most of the night. Feel of the skin, a little too warm; complained of some chillness. Dis-

tention with synovia not so great; no weeping from the cut. Wet the bandage with tinct. opii. Apply cold water, if there is more heat, and take a laxative. 6, P.M. Pulse 64. Slept one hour to-day; has less heat than in the morning. Medicine has not operated. Repeat. The knee more swelled, no soreness, no pain. The knee to be kept wet with water of the temperature of the room.

Jan. 9; 9, A.M. Found him asleep. Pulse 69. Did not sleep till midnight, when he had one dejection. Found his knee swelled as before; said there was one spot a little sore near the cut. The heat of the body and leg a little more than natural. Found that his knee had not been wet for nine or ten hours. Directed it to be wet, and a small piece of ice to be kept on the sore spot. 5, P.M. Pulse 64. Has had three dejections since morning, and two naps of two hours each. Thinks he can eat the quart bowl of gruel his wife has prepared for him. His knee remains nearly the same, and the sore spot mentioned in the morning is not felt. Wet the dressing with cold water, and keep still.

Jan. 10, A.M. Pulse 59. Slept most of the night. P.M. Pulse 54. Sick of gruel. Knee less swelled; rice to-morrow.

Jan. 11, A.M.—Pulse 64. Slept well. Cavity of knee joint less swelled. Raised his own leg to place under the knee a clean folded sheet. Looked at the wound for the first time, and found it healed by the first intention. Replaced the plaster, wet with water and ice. Had his rice. 6, P.M. Pulse 60, quiet.

Jan. 12; 4, P.M.—Pulse 60. Two dejections in twenty-four hours. Slept all night. Hungry. Ate apples; took off plaster; synovial swelling quite gone. Ordered vegetable soup.

Jan. 13.—Pulse 60. No soreness except on bending the knee to a right angle. Two dejections.

Jan. 14.—Pulse 64. Using the knee abed. Sleeps well. Hungry.

Jan. 15.—Sitting up. Has been out ten rods to a neighbor's. Knee a little stiff.

Jan. 16.—Walked up in town one third of a mile and back.

Jan. 17.—Went to Boston, well. Went to work, and has had perfect use of the joint ever since. Was out in ten days.

In a note appended to the above case, Dr. Cutter states that several similar cases came under his notice. No wounds need more close attention, but inflammation could usually be prevented by proper care—cold

water, venesection and perfect rest. Small bodies are more annoying than large, being liable to get between the femur and tibia and throw a man down.

## Selected Papers.

### ON THE IMPORTANCE OF THE STUDY OF PHYSICAL SCIENCE IN MEDICAL EDUCATION.

An Address delivered at St. Mary's Hospital, May 22, 1869, by WM. ROBERT GROVE, Esq., Q.C., F.R.S.

#### IN TWO PARTS.—PART I.\*

WHEN the honor of presiding at this meeting was proposed to me on the ground that, having devoted some time and thought to physical science, I might with effect urge its importance for medical education, the task seemed an easy one; and, in a weak moment, I yielded to the temptation. On thinking the matter over, however, I found, too late for escape, though not for repentance, that the axiomatic truth of the thesis on which I was to discourse formed its great difficulty. Euclid could not prove that things which are equal to the same thing are equal to one another in any other way than by stating the proposition. How is one to urge the importance of a branch of study in aid of that profession which depends entirely on that branch of study? Medicine without chemistry and physiology, surgery without anatomy and mechanics, would indeed be the play of *Hamlet* with the part of *Hamlet* omitted. I must, therefore, take another starting-point; and, assuming that all connected with these schools are as fully convinced as I am that the study of physical science is the basis of medical education, I must rather address myself to those without, and endeavor to show what the healing art would be without science.

The following anecdote, in Faraday's own words, furnished to me by my friend Dr. Bence Jones, will not be a bad illustration:—

"July 21th, 1819, Machynlleth, Merionethshire.—I wanted a little alcohol; and, having found out a doctor's shop and a spruce doctor's man, got some. I then asked for a little spirits of salts, hoping I could have it in a glass stoppered bottle. The man found me a bottle, having emptied one of his preparations out of it, and would

then have poured in acid; but it was not the acid I wanted, and I again mentioned spirits of salts to him, willing to allow everything to the possibility of his ignorance of the scientific name, but at the same time adding 'muriatic acid,' to save his credit, if possible. He now seemed to understand me; and, reaching down another bottle, again prepared to pour, but I stopped him. 'It is muriatic acid that I want.' 'This is muriatic acid, sir.' 'No; that is nitric acid.' 'They are the same, sir.' 'Oh, no; there is a little difference between them, and one will not do for me as well as the other.' I then endeavored to explain that the one came from nitre; the other from common table-salt. He comprehended a difference between these two bodies, but not between their acids; and he brought out a *Pharmacopeia*, and, opening it at Muriatic Acid, uttered the Latin name and synonyms fluently and with great emphasis, endeavoring thus to prove to me the two were alike. I was really ashamed to correct the doctor; and, if I had not been under the necessity of vindicating my contradiction of him, should have left him in ignorance. However, at last I made him comprehend, from his own book, there was something like a difference between these acids; but I don't think he shut the book much improved by the affair. I could scarcely afterwards look at the man. If he had any feeling—he appeared to have a considerable stock of pride—he must have felt himself extremely lowered in the eyes of strangers, and before his own companion, who was standing by. I began to rummage his bottles for muriatic acid myself; but I must do him the justice to say he first found out what little they had (about an ounce), and that he really compared it with the nitric acid—I hope for information, though the object professedly was to show me how like they were. Is it not strange that a man so ignorant of his profession should still appear respectable in it; or that one so incompetent should be entrusted with the health and lives of his fellow-creatures? Had I seen nothing more than his harshly dictatorial manner to a poor woman who came in with a prescription and a bottle in her hand, I should have concluded him to be a man who had attained the utmost knowledge of, and confidence in, his art. Seeing what I did, I cannot enough condemn the being who, without a knowledge even of the first requisites of an honorable but dangerous profession, assumed to himself its credit and its power, and dashed at once upon human life with all the

\* This article was sent to us with the recommendation that it be republished in the JOURNAL.—ED.

means of destruction about him, and the most perfect ignorance of their force."

Another instance of the dangers of ignorance occurred to myself twenty-five years ago. Suffering from an illness for which strong doses of opium were required, I obtained a prescription which concluded with the words "quarta quaque hora sumendum." Fortunately for me, though perhaps not for you, I read it; for, when the bottle came, it was labelled, "To be taken every quarter of an hour," which direction would have given me sixteen times the prescribed quantity; and, had I followed it, you would have been spared the trouble of listening to me to-day. Another not uncommon mistake arising from ignorance of chemistry was that, in prescriptions of two or more substances, each of which singly was known to produce a certain effect on the human body, the practitioner considered that by mixing them he would get the effect of each; whereas, if even a slight chemical change took place on admixture, the resulting compound or precipitate produced a totally different effect from any of the components, and was, consequently, injurious, if not fatal.

If there be one species of cant more detestable than another, it is that which eulogizes what is called the practical man as contra-distinguished from the scientific. If by practical man is meant one who, having a mind well stored with scientific and general information, has his knowledge chastened, and his theoretic temerity subdued, by varied experience, nothing can be better; but if, as is commonly meant by the phrase, a practical man means one whose knowledge is only derived from habit or traditional system, such a man has no resource to meet unusual circumstances; such a man has no plasticity; he kills a man according to rule, and consoles himself, like Molière's doctor, by the reflection that a dead man is only a dead man, but a deviation from received practice is an injury to the whole profession.

The anecdotes with which I commenced, though doubtless not applicable to the present day, or to this metropolis, show the frightful power which is wielded by medical men. How many fatal blunders may occur we know not, for those who commit them are generally careful to keep the eleventh commandment, viz., "Thou shalt not be found out." How much harm, however, must have been done, not by ignorance such as this, but by what I may call accredited ignorance, *i.e.*, by received modes of treatment, which the intelligent practitioner

despised, but dared not depart from. The practice has so recently ceased that I can hardly venture to remark on it, by which a medical man was paid only for and in proportion to the quantity of drugs he administered; so that in very many cases—in all, more or less—the most honest practitioner could only support his family by giving sham medicine, or that which would produce no ill effect. Even this was difficult, as I need not tell you that a glass of water does harm if it is not wanted. What injury, again, you now know to have been effected by the blind and almost compulsory following of systems—from the time of the Dogmatists and Empirics to the phlogistic and antiphlogistic doctors, and from them almost to the beginning of the present century—what terrible results must have followed from ignorance of physical science, and of its judicious application to medicine!

Physician, *i.e.*, student of nature; but what is nature? Not a personified existence, as she is apt to be conceived, but simply what is, what we observe, or what we deduce or generalize from observed phenomena. Observation teaches us, when directed to organic beings, that they have an adaptability to circumstances, arising, probably, from long-continued adaptation; but the limits of this adaptability are exceedingly difficult to ascertain. To know when and to what extent change will benefit, and when it will injure or destroy, requires the highest skill of the experienced and scientific physician. The so-called nature of the hot-house grape, of the domestic cow, differs from that of their wild congeners—they suffer from different diseases, and require different remedies.

What is disease? Speaking crudely, is it anything but too sudden a departure from uniformity of action? The function of the whole or of some part of an organism is rapidly accelerated or impeded; the other organs cannot keep pace with it; the structure becomes changed, because those motions which preserve its form, those secretions which feed it, are out of time with it; and either the destruction of the organism, or the setting up of a *quasi* independent life, ensues. Things have become what they are by slow alterations during ages, and their power of adaptation will not bear sudden changes. What can enable you to detect and to remedy this? First, a knowledge of the function of the body in its healthy state; second, a knowledge of the cause of the derangement. Can you proceed one step in these inquiries without a knowledge—ay, a profound knowledge—



of physical science? Could we tell, without a knowledge of chemistry, only attained in the present century, why train-oil is good for the Esquimaux and rice for the Oriental? Until a few years back, we did not know that fat, and not lean meat, was the best food for those who undergo great but rather sudden physical exertion; and even now we do not know how much sugar, starch, or fat, and how much nitrogenous food are suitable for given habits; how much lime, how much phosphoric acid, &c., are required; for a man without bones would not succeed, and bones cannot grow out of nothing, or substantially from other elements than their normal constituents. The sportsman's appetite may guide him with tolerable accuracy, but you have to treat the lawyer and the statesman, and to tell them how they are to economize their powers under the most trying changes of condition. And your difficulty is the greater that you are not allowed to experiment. If a physician could select, say ten patients laboring under similar disorders, and apply a different mode of treatment to each, he would greatly promote the science of medicine; but he would, doubtless, be sentenced to penal servitude for manslaughter.

Of the first two steps to physical science—observation and experiment—one is, to a great extent, denied you. How can you supplement it? Very feebly, I own. You have, to some extent, *post-mortem* dissection, and you have comparative anatomy and physiology; but you have a little more: you may substitute for experiment, observation of individuals; or, better still, of classes, placed by their necessities under circumscribed conditions. Thus the miner would give you some aid as to what degree of health was compatible with exclusion from light and respiration in an abnormal air; and what diseases are produced by such conditions of existence. The fisherman could assist you as to what are the effects produced by a fish diet, &c. Indeed, there is some scope for individual experiment. Fick and Wislicenus made valuable experiments on themselves in their ascent of the Faulhorn. Regnault made valuable experiments on animals (hardly chargeable, like vivisection, with cruelty) by keeping them in different gases, and supplying them with special food.

Physical science applied to these cases is at present in its infancy; but can anything else do anything? It provokes me to hear classically educated men speak in patronizing terms of the introduction of physical science into general education,

such as, "I do not object to physical science; I have no prejudice against it." Why, you might as well object to breathing, to eating, to seeing.—*British Medical Journal*.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Surgical Cases in the Service of Dr. GEORGE DERRY.  
Reported by Mr. GLO. B. STEPHENS, House-Surgeon.

*Amputation of Thigh for Injury; Death from Pyæmia.*—April 22. J. L., æt. 35. The patient's right leg was caught between an elevator and its supports at the side, breaking off and extensively comminuting the tibia and fibula just below their heads, the fracture of the former extending into the knee-joint.

On the following day, the thigh was amputated by Dr. Derby, just above the knee, by the circular method. The skin of the flaps was extremely tense. Nine ligatures were applied, the flaps brought together with silk sutures, and the face of the stump covered with a cold compress and a tight bandage. Stump elevated on a pillow. Patient ordered ʒss. tinct. opii on recovery from ether, to be repeated at night. He recovered from the ether well, and the reaction which followed was but moderate.

Three days after the operation the sutures were removed; the edges of the flaps were then looking black and sloughy. May 4th, eleven days after the operation, with the exception of two, all the ligatures, including that upon the femoral artery, came away. For a little more than three weeks everything went on as favorably as could be expected; a large abscess formed on the outer side of the thigh, but incisions evacuated it; the sloughs of the flaps separated, and the face of the stump presented a healthy granulating surface, which became very much contracted; the patient's appetite and spirits were good, and everything seemed propitious. But on May 17th, the twenty-fifth day after the operation, the patient was seized with a severe chill in the morning, and again in the afternoon. No unfavorable symptoms followed close upon the chills, and as he had been subject to them previously, after exposure to the influence of malaria, a favorable termination was still looked for.

For a week longer the course of events was all that could be desired. The edges of the stump continued to contract; the

patient's condition was excellent. May 24th, he had another chill; vomiting, diarrhoea, and pain in the abdomen, which was somewhat tympanitic, followed. Pulse, 160. He was freely stimulated, and received nourishment at short intervals; after each dejection, starch and laudanum enemata were administered. May 26th, the discharge from the stump had nearly ceased, and its face presented a dry, shiny appearance. The stimulation and nourishment were continued, and the diarrhoea followed up with opiate enemata. The patient was now but semi-conscious; he died on the morning of the 27th, the fourth day after the pyæmic symptoms showed themselves, though the chills of the 17th might be considered premonitory.

*Amputation of Thigh for Chronic Disease of the Knee-joint; Death from Pyæmia.*—April 21. W. V., æt. 38, laborer, entered with disease of the knee-joint of long standing, consequent upon a blow received years ago. There was considerable enlargement of the joint; sinuses communicated with it; the leg could not be flexed.

During the following four weeks subcutaneous abscesses about the knee were first evacuated; then sinuses communicating with the joint were freely laid open. The discharge was profuse, and the drain upon the patient very evident. Having refused amputation for some time he finally consented.

The thigh was amputated, by Dr. Derby, at the lower third, by the circular method, on the 21st of May. An unusual number of vessels required ligatures. Silk sutures; cold compress; tight bandage. May 23d, the bandage was removed from the stump; the flaps were in perfect apposition, with no tension from the sutures. May 26, the patient had a severe chill; the removal of the sutures let out a considerable amount of very thin, watery pus. On the following day he had another chill; stump continued to discharge an abundance of thin, offensive pus. The pulse was small and feeble; the features pinched; the bowels constipated. No vomiting. He continued to fail during the three days following, though free stimulation was had recourse to. The discharge from the stump was of the same watery character, but decreased in amount. On the 29th, he was semicomatose, and on the 30th died, the fifth day after the first chill. He at no time had vomiting or diarrhoea.

*Operation for Ununited Fracture of the Lower Jaw; Death from Pyæmia.*—April 27. J. G., æt. 21, was struck over the

lower part of the face with an iron wrench; a fracture of the lower jaw at two points was thus produced—one on the right side in a line with the angle of the mouth, the other on the left side just in front of the angle of the jaw. For nearly two weeks the ordinary treatment for this injury was pursued; on one side the teeth were wired; on the other the absence of teeth prevented this procedure from being adopted. A gutta percha splint and various bandages were applied. One of the teeth wired came out on the eleventh day after the patient's entrance; union had not even commenced at either point of fracture.

May 8th, the twelfth day after entrance, Dr. Derby cut down upon the jaw at the two points of fracture, and wired the fragments together. Following the operation the face became enormously swollen, the upper eyelids infiltrated with serum, and abscesses formed at various points about the face and neck. The knife was used wherever pus was confined, and once or twice for the relief of the tension merely. Nine days after the operation, the œdema of the face had nearly subsided. The fragments had been kept in good position by the wires and a gutta percha splint beneath the chin, but no union had resulted. Eleven days after the operation the patient was evidently growing weaker, and symptoms pointed to the chest as the seat of trouble. On the afternoon of May 20th, the thirteenth day after the operation, he died.

He was not known to have had any chills, nor had he vomiting or diarrhoea. The autopsy showed between four and five ounces of yellowish fluid in the pericardium and lymph on its walls. In the right pleural cavity were three and a half quarts of a puriform fluid; the lung was thoroughly compressed against the vertebral column; at two points in the lung the tissue was degenerated, broken down and mixed with dirty-yellow pus.

*Amputation of Thigh for Compound and Comminuted Fracture of Leg; Recovery.*—July 14. The patient, a delicate boy, aged 6, was run over by a street-car. He was brought to the Hospital suffering from shock. Examination showed a compound and comminuted fracture of both bones of the leg at the middle third. On the posterior aspect of the leg the integument had been torn away from the knee nearly to the ankle, and through the rent thus made the muscles of the calf, very much torn, protruded. On the front of the limb were two openings communicating with broken bone.

The hæmorrhage had been but slight. A stimulant enema was administered.

The thigh was amputated, by Dr. Derby, just above the knee, by the circular method. Five vessels were tied. The flaps were brought together by silk sutures, and over the face of the stump a cold compress and tight bandage were applied. During the operation the patient was so low as to require two stimulating enemata. For three hours after the operation his pulse was scarcely to be felt, but at the end of that time (8, P.M.) he had nearly recovered from the ether and reaction had fairly begun. Fifteen drops of tincture of opium were given. The case progressed most favorably; the sutures were removed on the third day; the ligatures all came away on the eighth and ninth days; nearly three fourths of the flaps united by first intention. The only symptom at all unfavorable was a small collection of pus at the outer corner of the stump; a small poultice so promoted the discharge at this point as to dispel the threatened abscess. July 30th, sixteen days after the operation, the patient was discharged; the flaps had entirely united, except at two small points, which were granulating.

## Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 19, 1869.

### THE PART PERFORMED BY NATURE AND TIME IN THE CURE OF DISEASES.

THE twenty-fifth volume of the "Library of Practical Medicine," published by the Massachusetts Medical Society, consists of three dissertations. The Preface tells us that—

"The following Dissertations were sent to the 'Prize Committee' appointed by the Massachusetts Medical Society, in answer to the question proposed for 1868:—'The Part performed by Nature and Time in the Cure of Diseases.'

"For this prize the sum of one hundred dollars had been placed at the disposal of the Society by the liberality of one of its members, who afterwards learning that more dissertations than one were thought worthy of the premium, generously offered to furnish two other prizes of like amount, should the Committee consider other dis-

sertations offered to be worthy of such distinction.

"The Committee then reported that they had received a number of essays, three of which they adjudged worthy of prizes, severally indicated by the three following mottoes:—

"*'A true announcement of the law of Creation, if a man were found worthy to declare it, would carry Art up into the kingdom of Nature, and destroy its separate and contrasted existence.'*

"*'Nature dominant—Art ancillary.'*"

"*'Ingenus didicisse fideliter Artes Emollit mores nec sinit esse feros.'*"

"At the Annual Meeting of the Society, June 3d, 1868, the Secretary of the Society, in open meeting, broke the sealed packets, and the authors were found to be Robert T. Edes, M.D., of Hingham, Mass.; James F. Hilberd, M.D., of Richmond, Indiana, and John Spare, M.D., of New Bedford, Mass.

"The Dissertations were then, by vote of the Society, referred to the Committee on Publications. This Committee, while believing that the publication of the Dissertations would be of great service to the cause of rational medicine, felt constrained to forego so desirable an object on account of want of funds at their command for the purpose, whereupon the same liberal donor\* offered to supply the deficiency—amounting, as it proved, to two thirds the expense of publication."

As many of the subscribers to this JOURNAL do not see this volume, we think the papers which have received so much honor deserve some notice here.

The first dissertation of the series of three is by Dr. Edes, of Hingham, Mass. It contains an elaborate survey of diseases and traumatic lesions, with regard to their greater or less tendency to recovery. As preliminary to the investigation of the part played by nature in the cure of diseases, he considers—

"What we shall, for our purpose, take nature to mean. All the surroundings of a sick man, the air he breathes, the food he eats, his clothes, his bed, as well as his medicines or dressings, and his constitution, hereditary or acquired, have their influence on the result of the disease; and yet, no matter what the other influences brought to bear, he would be spoken of in

\* Announced at the Society's dinner to be Dr. Jacob Bigelow, of Boston.

common parlance as left to nature, if he took no medicine, or were under no definite plan of treatment; yet if a fever patient, how different his condition, whether his excreta be allowed to remain or be immediately removed, and his apartment ventilated; or if he be affected with phthisis, what air he breathe, or what food he eat; or if a surgical case, whether his bed be good or bad, or whether he keep still or walk about.

"Abundant instances may be found to show how very marked and favorable an influence ventilation, even to the extent of treating patients in a tent, has over the course of typhoid and typhus; yet, to the minds of the uninstructed at least, the hospital would seem as natural an abode as the tent.

"It is manifest that these changing elements must be excluded, and we must consider nature to mean the pathological character and tendency of the special disease, combined with the constitution of a given patient, and, as far as possible, without regard to any external circumstances.

"Suppose the course of any disease to be represented by a curve, of whose function the chief independent variables are the force of the disease and the force of the patient, and other circumstances come in as co-efficients to influence within certain limits the result. The form of the function may be such (it is not always so simple as  $x-y$ )\* that either variable may almost wholly determine its value, whether it shall at any point become equal to zero. It is the form of this function, without regard to the co-efficients of external circumstances, food, air and medicine, which we may consider to be nature. Each disease has its special function, which is to be determined by eliminating, so far as we can, the disturbing and accidental elements."

In the concluding portion of the essay, he says:—

"The proposition that in many cases nature has a very strong tendency to cure, in others makes some attempts, sometimes successful, sometimes unsuccessful, and in others still makes none that we can see, does not need to be proved, but only suggested; although the extent to which we may rely upon her assistance in individual cases is often a fair question of discussion, only to be settled upon the basis of careful observation, not necessarily by doing nothing, but by watching in an unpre-

judiced spirit the course of disease and the action of remedies. \* \* \* \* \*

"A general indefinite belief in nature's power to cure disease and in our own slight control over it, would lead to little practical result, except a diminished feeling of responsibility and a disinclination to interfere; but an accurate and careful study of nature's methods furnishes the best and only reliable foundation for rational and efficient therapeutics.

"The advantages are many of an appreciation, both within and without the profession, of nature's part in the cure of diseases.

"1. Pure science is advanced.

"11. The use of our present means of healing will be rendered more precise, and therefore more efficient.

"We may distinguish several plans of treatment according to their relations with nature's methods.

"(a) Of those which follow nature more or less closely.

"1. Pure expectancy, combined with attention to hygiene, and, if necessary, palliatives. (Those cases in which the diet has a specific effect, as especially in scurvy, are not to be considered as treated by the expectant method.)

"2. Supporting treatment; whose object is to keep the patient alive while nature has time to complete her processes.

"3. Adjustment and arrangement; removal of obstructions and diseased parts, allowing nature to complete the work; principally surgery.

"4. Eliminative treatment; helping the system to get rid of morbid material.

"(b) Of those which more or less oppose nature.

"5. Symptomatic treatment; where an attempt is made, by controlling some prominent symptom, to control the disease. This includes the antiphlogistic.

"6. Specific treatment.

"These plans are seldom used alone, but in various combinations with each other.

"Returning for a moment to the mathematical figure before made use of, we may consider the hygienic treatment to influence the form of the function by supplying the most favorable values for the co-efficients; the supporting, to place at its highest value the variable representing the patient's forces; the eliminative, to reduce the value of the variable representing the force of the disease to the lowest point consistent with existence of the function in its usual form; and the specific, as giving it an un-

\* Dr. Holmes uses, in "Currents and Counter-Currents," a somewhat similar illustration to represent the depressing effects of some active remedies.

sual form by reducing the last-mentioned variable to zero.

"III. The search for new methods of cure will be rendered easier and more successful from having a fixed standard of comparison, and from the less confusion of remedies. Less time and labor will be wasted in going over familiar ground. There is no reason why we may not reasonably expect, not only greater power of prevention, but actually a greater control over disease, than we now possess.

"IV. The true relation of the physician to his patient will be better understood, since his art will be as far from being considered powerless by the sceptical, as from receiving the blind, unreasoning, and often unfounded confidence of the ignorant.

"V. To descend to lower ground, a general understanding that the part of the physician is to be familiar with disease and acquainted with its natural course, not always to use active measures for a cure, will be a most efficient means for lessening the amount of more or less respectable quackery. The more people know of medical subjects and the more fully they are aware of the truths I have endeavored to enunciate, the less success can be looked for by shameless vaunters of panaceas, or by members of pseudo-scientific organizations, who cure self-limited diseases by specifics, and increase the value of their boasted triumphs by ignorant or fraudulent diagnosis. When the truth is popularly appreciated, in vain will such say to each other, in the words of the great satirist of our profession, "*Soyons de concert auprès des malades, pour nous attribuer les heureux succès de la maladie, et rejeter sur la nature toutes les bêtises de notre art.*" \*"

In the last of the three dissertations (that by Dr. Spare, of New Bedford, Mass.) a salient point is the discussion of the second of the two elements in the cure of disease—mentioned in the prize question—viz., *time*. On this head the Editor of the *Western Journal of Medicine*, in a notice of Dr. Hibberd's essay, makes the following point:—

"We object to the introduction of *Time* as one of the factors in the cure of disease. Dr. H. seems to make of it an entity, a positive force quite as much as any of those that have thus considered disease. What is time? Simply measured duration. During its flow certain events can transpire, certain processes be completed; but *per se*

it has nothing to do with such events or processes—no more to do in itself with the recovery of a man from rheumatism in six weeks, than with the hatching of a hen's egg in three weeks; no more to do with either than with the Declaration of Independence on the 4th of July, 1776. The Cunard Steamer which takes our friend to Europe, will require a certain number of days in which to cross the Atlantic; but those days simply constitute a period during which the mighty power of steam, guided by the genius of man, can do a certain work. A boy learns a lesson in an hour, but the hour has no influence upon his mental processes. We would not esteem it a judicious title for a thesis upon the action of aloes—*Aloes and Time as a Cathartic*. We would rather have written the title of Dr. H.'s Essay, *Nature in the Cure, Time for the Cure of Disease*."

Now, Dr. Spare, in his paper, states the part which "*time*" plays as an element in *recovery* from—rather than a force in the *cure* of—disease. Thus, he says:—

"We pass rapidly over this mechanical law of motion and time, as in no plain sense vital or organic, and light next upon *growths* in nature, timed to seasons and days—and to a certain number of years—not only growths, but decays or resolutions of things grown, and various transformations. Nothing, whether vegetable or animal, is produced, unless a time-law enters as an element among the conditions. Not only is there a *duration* time-law for these growths, but a select *season* also for vegetable, and the lower forms of animal, dependent on the heat or cold of the territory where they inhabit, a season as dependent on rotation of the earth, or position of the sun. The habits and instincts of animals seem to be wonderfully conformed to season of manifestation. Birds of passage, when caged and in a foreign or factitious climate, manifest great commotion as the time-period arrives when they should migrate." \* \* \*

"The subjects nearest analogous to human disease are human physiological states; most of which have a marked time-rate. Observe the periods of gestation, lactation, dentition, growth, puberty, manhood, decline, death; the heart-beat and its intervals, respiration and its intervals, alternate digestion and hunger, sleep and wakefulness, lapse of time in muscular exertion, then the corresponding tiredness."

Subsequently he goes on to the consideration of the "*duration* time-law" in pathology.

\* Molière. L'Amour Médecin.

The intermediate essay—by Dr. Hibberd, of Richmond, Indiana—is to our minds a model of elegant and forcible diction and of terse expression. Dr. Hibberd begins by laying down certain propositions as axioms, which become the postulates from which he deduces his conclusions. We cannot do better than to give the author's summary of his paper:—

“*Summary.*—The prominent points presented in the foregoing dissertation may be enumerated as follows:—1. All vitalized matter is the subject of a law of development peculiar to its class. 2. Vital organizations are not active *per se*, but are endowed with a capability of activity under stimulation. 3. Normal stimulants produce physiological activity or health; abnormal stimulants produce pathological activity or disease. 4. Human maladies are always the result of abnormal stimulants acting on the histological elements of the body. 5. Disease in any part continues as long as the pathological stimulant is operative; when this ceases, the part returns to its physiological state. 6. To cure disease it is only necessary to remove the stimulant exciting it. 7. This stimulant is rarely known, and still more rarely can it be removed. 8. In most diseases we only recognize the grosser symptoms, after the initial processes have completed their course. 9. After the stage of recognition most diseases must pursue their course through a series of phenomena under an inexorable biological law. 10. The duty of the physician is to watch nature and assist her as opportunity may offer. 11. All perturbing medicines are themselves pathological stimulants, and should not be administered except under a certainty of abating a greater evil. 12. The present popular professional estimate of the medical virtues of drugs rests mainly on the vicious logic of *post hoc ergo propter hoc*. 13. That this estimate is erroneous is proven by: *a.* Curable diseases are recovered from in the absence of all kinds of drugs. *b.* Curable diseases are recovered from under the most diverse treatment. *c.* The adulteration of drugs makes their strength uncertain. *d.* The state of the patient's mind makes the operation of even pure drugs uncertain. 14. A recognition of the doctrine of the *vis medicatrix nature* must underlie all rational therapeutics. 15. The principle involved in this phrase has been recognized and deferred to, since the earliest historical era of medicine, and is likely to be immortal. 16. It derogates nothing from the

physician, or the agents he uses, that nature is predominant and art *opiferous*.”

The first seven propositions of the preceding summary would seem to amount to this—that the causes or essential elements of diseases are rarely known, and that, therefore, attempts to remove them are for the most part a groping in the dark.

The *Western Journal of Medicine*, however, takes the ground that Dr. Hibberd has exaggerated our ignorance of the causes of disease.

“True, undoubtedly, that we do not know the causes of very many diseases; but on the other hand, the physician daily sees cases of disease of which he does know the cause. For example, he meets with a case of convulsions in a child, which he traces to indigestible food in the stomach or intestines; or again, a case of epilepsy dependent upon chlorosis; or a case of cirrhosis resulting from the use of alcoholic liquors; or a case of menorrhagia from sexual excess, &c. &c. Now, will the good dame Nature, with her faithful attendant, Time, see to the removal of the offending matter from the child's gastro-intestinal canal? She probably will in five cases, but in the sixth the sufferer may die before the process is completed; and the physician does wisely who administers what our friend would call a *perturbing medicine*, an emetic or a cathartic, under such circumstances. In the second case, we remove the epilepsy by restoring the blood to its normal condition. In the third, we interdict the use of the agent which has produced the trouble, and endeavor to supplement at least a part of the hepatic function by ox-gall, *et cetera*, and we at least prolong the patient's days. In addition to the removal of the cause in the fourth illustration, we endeavor, both by hygienic and therapeutic means, to change the excessive determination of blood toward the uterus and ovaries.”

The part played by *art* in the cure of disease is often underrated. Dr. Hibberd says:—“When a surgeon has distorted members of the body to restore, nature and time must be his chief reliance, and his appliances, whatever they may be, only serve to guide and encourage the physiological forces.” It has been fairly asked, in reply, “what amount of physiological force will restore a limb flexed from ankylosis? Here we beg to claim that a Stromeyer's screw, or that gum-elastic bands, are worth

more than nature. So, too, the cicatrices from burns, causing deformity and hindering the usefulness of a member, frequently may be removed, and healthy integument placed upon the denuded surface,"\* where, to be sure, nature makes it grow. Here the surgeon's art is of great importance—*nature* being, by a succession of processes requiring *time* for their accomplishment, capable of accomplishing only what he gives them the opportunity of doing.

The 16th and last proposition embodies the substance of Dr. Hibberd's remarks under the head of his "Conclusion." That passage seems to us so sound and well stated that we quote a considerable portion of it here :—

"Let no one for a moment imagine that the views herein promulgated have a tendency to undervalue the importance of medicine in the management of disease, or detract one iota from the responsibility, the dignity, or the usefulness of the accomplished physician.

"Medicines have a positive power that can be, and should be, made available to assist nature in the removal of pathological stimulants, and in the arrest of pathological activity. No one doubts the power of anesthetics to abolish sensibility; of opiates to allay pain; of aloes to evacuate the bowels; of veratrum to lessen the heart's action; or of quinia to arrest malarial periodic disease. All these, and many more, are in constant demand for proper and prudent therapeutic purposes; and that all of them, not nutrients, and forcible enough to make an impression, are pathological stimulants and of themselves an evil, militates nothing against their legitimate use, or their positive value. It only signalizes that a wise judgment, a sound discretion, and a just discrimination should dictate and control their prescription, to the end that one evil should be brought into requisition voluntarily, only when it will, with certainty, assist to abate a greater evil. It is the training, the skill, the acumen, that is necessary to the exercise of a sound discretion and a wise judgment in the selection and administration of medicines, that distinguishes the good physician from the presumptuous pretender. One cannot attain to this accomplishment without a clear and intelligent insight into biology, both normal and abnormal."

[To be concluded in our next issue.]

\* Western Journal of Medicine.

THE ALLEGED CASE OF DEATH FROM ETHERIZATION—LETTER FROM DR. POWELL.—The subjoined letter speaks for itself. The patient did not die in the presence of Dr. Powell. But Dr. Powell was erroneously informed, as it would seem, that death took place the following night. The letter of Dr. Cheever and the extract from the Hospital Records, in our issue of Aug. 12th, show that the patient underwent the operation immediately after having recovered from the "alarming symptoms" following the administration of the ether, and lived for *twenty days* subsequently. We presume the matter is now finally disposed of, and believe that we have yet to record the first case of death from etherization by sulphuric ether.

CHICAGO, Ill., Aug. 12, 1869.

MR. EDITOR,—Upon my return home this morning, I found your letter of date Aug. 1st, in reference to a paragraph in the Transactions of the Illinois State Medical Society, in which I am made to say that "I saw the ether administered to a patient in the hospital at Boston, Mass., who died directly from the effects of the inhalation."

The reporter of the proceedings of the Illinois State Medical Society, on that occasion, entirely misunderstood me. I did not make the statement as reported.

In a general discussion on chloroform and ether, I referred to a case that I witnessed at the Boston City Hospital, in which alarming symptoms occurred during the administration of ether. I stated that I was informed that the patient died the following night.

The case referred to occurred in February, 1868, was an old man, who was being operated on for stricture by Dr. Cheever, assisted by Dr. Thorndike. The ether was administered by one of the house officers.

Very truly, E. POWELL.

UTERINE DISPLACEMENT AS A CAUSE OF EXOPHTHALMIC GOITRE—LETTER FROM HENRY REYNOLDS, M.D., EAST WILTON, ME., IN REPLY TO A CRITICISM BY DR. BEACH.—*Mr. Editor*:—In Vol. III., No. 24, of the "Journal," I reported a case of "Uterine Displacement," which I considered to be the cause of the accompanying symptoms of a disease, which has been called exophthalmic goitre. The case was commented upon in the same number of the "Journal" by Dr. H. H. A. Beach, who considered that these

symptoms were not dependent upon the uterine disease.

As the case was under my observation, I had ample opportunity to observe the manifest dependence of the symptoms of the goitre upon the uterine affection; and since, in my report, I did not state fully my reasons for considering that this intimate relation existed, I feel that it is incumbent upon me to communicate those reasons. It seems to me that the evidence afforded by this case is sufficient to merit further investigation.

That uterine irritation is the most common cause of this form of goitre, I do not pretend to affirm upon the evidence of this single case, but that it may, in some cases, be the cause, and as such it is worthy of consideration. It is my object to direct attention to this as a probable cause in some cases, at least, that physicians may investigate the subject as they may severally have occasion. The rarity of the disease, and the impossibility of one physician's meeting with a sufficient number of cases to enable him to determine the most common cause, render it necessary that the question should be settled by the accumulated observations of individuals.

The patient, in the case referred to, had been suffering for ten years, from disordered menstruation and other symptoms of uterine disease, and had been anæmic, debilitated and emaciated during that period of time, but was so as to be able to be about most of the time. The palpitation of heart began to trouble her a few months before the enlargement of the thyroid was noticed, and the symptoms of uterine disease seemed aggravated at about this time. The difficulty in walking, pain in the lumbar region, sense of weight and dragging down in the bowels, increased menstrual flow, were among her uterine symptoms.

Tincture of iodine was applied to the enlarged gland for some time before my treatment was commenced, but it did no good.

The case came to me in July of 1868, and I treated her medicinally for the bronchocele and for the "bunch," which was situated two inches to the left of the left nipple, and which had excited fears that it might be of a cancerous nature. Gave her tinct. conium maculatum, in drachm doses, three times daily, to correct the disordered nutrition, and continued it for about six weeks, but without apparent effect upon the bronchocele. Other treatment as seemed adapted to the requirements of the case was tried with a like result. In November of the same year, having failed to affect the

disease by medicine, I determined to address my treatment to the uterine disease. The uterus was enlarged and prolapsed. Inserted one of Hodge's double curved lever pessaries, and gradually the uterine symptoms yielded, and as the uterine disease became relieved the bronchocele and prominence of the eyes subsided and disappeared.

The goitre disappeared before the patient entirely recovered from her uterine disease. It seemed that the goitre symptoms were due to an aggravated form of uterine irritation, and when that was relieved to a certain extent the goitre subsided. Dr. Beach, in his comments upon the case, says: "The theory of the uterine lesion standing in the relation of a cause to the main symptoms (bronchocele, prominence of the eyeballs, and inordinate action of heart), does not seem tenable if we consider that there was an enlargement and a prolapse of the uterus at the time the treatment was commenced; that when the report was made the prominent symptoms had subsided, but 'some uterine enlargement' remained, and the prolapse was controlled by the pessary." And also because the uterine disease had so long existed before the symptoms of goitre appeared.

The fact that the uterine disease had existed for a long time previous to the accession of the goitre symptoms, does not preclude it from being the ultimate cause. It is a common occurrence for a woman to be affected with a displacement of the uterus, with no symptoms whatever referable to it, for some time, perhaps years, until some change occurs which renders the displaced organ irritable, when uterine symptoms are manifested; it may be in a mild form for a time, until another aggravation of the disease takes place, when the disease may become so severe as to confine the patient to her bed, and powerfully impress the system with reflex disturbances. Yet it would not be philosophical to say that, because at first the uterine lesion occasioned no symptoms, it could not have been the cause of the subsequent stages of the disease.

So, in like manner, the degree of irritation and disturbance of the nervous system which had existed during all this time previous to the appearance of the symptoms of goitre, apparently was not sufficient to induce the bronchocele, but an increase of the uterine disease so disturbed the system as to produce the goitre, and when means were used to relieve the uterine disease to such a degree that it did not exceed in intensity what it had been formerly, the goi-



tre disappeared for want of a *continuing cause*. It must not be taken for granted that, since the uterine disease had existed prior to the accession of the goitre, and, in some degree, remained after the goitre disappeared, it did not cause it. It would have been expected, *a priori*, that symptoms so grave would not have been manifested for some time, perhaps for years, and that the most grave symptoms of the disease would have been the first to disappear during the cure.

Therefore, there is nothing in the history of the case to militate against the theory that the uterine disease caused the goitre; but, on the contrary, that history affords strong evidence in support of the theory. The connection of the two diseases appears to be intimate, the goitre coming on as the uterine disease advanced, and being checked and disappearing when the uterine disease was relieved. It seems to me that the evidence of the relation of cause and effect existing between them is about as strong as *one case* can render it.

It is my desire that this subject should be thoroughly investigated, that the truth may be attained. If uterine disease be the cause of a portion of the cases of exophthalmic goitre, surely something then will be obtained towards the understanding of so obscure a disease, and enable us to adopt a rational course of treatment in that portion of cases, with the best prospect of success.

LETTER FROM DR. TREADWELL, OF BOSTON, IN REPLY TO A CRITICISM OF DR. REYNOLDS'S CASE OF UTERINE DISPLACEMENT, &c.—*Mr. Editor*,—Notwithstanding the able criticism of Dr. Beach upon the report of the case of "Uterine Displacement" contained in the *JOURNAL* of July 15, I cannot see why the existing uterine lesions did not stand in a "causative" relation to the succeeding train of general symptoms. The case in the end may have been, and indeed was, one of those presenting the characteristic group of symptoms which, combined in the same case, constitute what is known as Graves's disease, or exophthalmic goitre; but it can hardly be denied that all of these symptoms in the present case may not have been produced by the uterine lesion. Trousseau and other writers consider Graves's disease as belonging among the functional affections of the nervous system, or the neuroses, and it might naturally be expected that all of the symptoms belonging to this disease might be produced by pathological conditions of the uterus acting as a source of irritation to the sympathetic system; and indeed such cases have been observed and recorded. Trousseau gives two cases, in which the suppression of the menstrual function was intimately connected, and seems to have stood in a causative relation to the

development of the disease in question. The same author relates another case in which suppression of the menses was the exciting cause of this disease. I quote the following from his lecture upon this subject:—"Bearing in mind," says Dr. Gilbert-d'Hercourt, in his relation of the case, "that all the relapses of Mrs. B. had been preceded by a diminution or a complete suppression of the catamenia, he decided on carrying out the hydropathic treatment in such a way as to bring on congestion of the uterus, and thus produce a healthy revulsion." \* \* \* "In 1857, in the month of June, she had another relapse, or rather a fresh paroxysm, preceded by suppression of the menses."\* In regard to treatment, Trousseau dwells upon "the necessity of re-establishing menstruation," considering it "an important therapeutic indication."

Aitken says:—"It"—exophthalmic goitre—"co-exists with wasting discharges, or supervenes upon them; such as in leucorrhœa, menorrhagia in females, and hemorrhoids in males."†

Dr. Graves, in writing upon the disease which bears his name, remarks:—"The well-known connection which exists between the uterine functions of the female and the development of the thyroid gland observed at puberty, renders this affection worthy of attention, particularly when we find it so closely related by sympathy to those palpitations of the heart which are of so frequent occurrence in hysterical and nervous females."‡

I am sorry to differ from Dr. Beach, but it seems to me that the fact that the uterine lesions preceded the development of the symptoms of Graves's disease, and the additional fact that the latter subsided as the uterine troubles were relieved, show that "the theory of the uterine lesion standing in the relation of a cause to the main symptoms (bronchiœle, prominence of the eyeballs and inordinate action of the heart)," is perfectly "tenable" and correct. J. B. T.

POISONING WITH PETROLEUM.—At a meeting of the St. Clair Co. (Mo.) Medical Society, Dr. Meyer reported the case of a child, eighteen months old, poisoned by the administration to it, by another child, of a tablespoonful of petroleum. It was cyanotic, and respiration had ceased. By enemata of vinegar, dashing cold water over the face and chest, warm friction of the extremities, and perseverance in "Marshall Hall's Ready Method," respiration was re-established, and, after violent emesis of petroleum and coagulated milk, following the forcing into the stomach of warm milk with yolk of egg, the case terminated favorably.—*Medical Archives*.

A TESTIMONIAL is to be raised to Mr. Syme by his former pupils. It is thought a marble bust and a Surgical Scholarship would be appropriate. Dr. Murchison, of London, will be glad to receive names.—*Medical Press and Circular*.

\* Lectures on Clinical Medicine, A. Trousseau, Translation New Sydenham Society, 1868, pp. 567, 580, 589, 590.

† The Science and Practice of Medicine, William Aitken, M.D., 1866, p. 812.

‡ Practice of Medicine, Robert James Graves.

## Medical Miscellany.

**ACKNOWLEDGMENT.**—We are indebted to Dr. Beach for the description of the Carney Hospital in our last issue.

We take occasion to say also that the feeling tribute to the memory of the late Dr. Swett in the Journal of August 5th was from the pen of Dr. J. B. S. Jackson.

**ANTI-QUACKERY.**—At a meeting of the Orleans County (Vermont) Medical Society, held last week at Newport, it was resolved that it was the duty of the State Legislature to pass such laws, with penalties attached, as shall prevent all persons from engaging in the practice of medicine or surgery who have not diplomas from medical colleges legally authorized to grant the same, and such as will protect the people against imposition from itinerant pretenders.—*Boston Daily Journal*, August 12, 1869.

**CARUNCLE MYRTIFORMES.**—M. Demarquay, commenting upon the case of a young woman sent to his hospital from the country, in order to have some malignant tumors removed from the genital organs, observed that on examination everything was found in a normal condition with the exception of the *caruncule myrtiformes*, which, being somewhat enlarged, were mistaken by the practitioner for epithelioma. It is, he observed, by no means rare to have similar cases sent to him by practitioners who are not accustomed to the constant examination of the organs like himself.—*Union Med.*, June 20.

**HYDATIDS PASSED BY INTESTINES.**—By J. SINCLAIR HOLMES, M.D., Glenarm Co. Antrim.—Mrs. B., aged 60, enjoyed good health to nine months before decease, when she felt some pain over the liver and right shoulder. This gradually became most intense, and produced much debility, as all remedies, outward or inward, failed to give permanent relief. The liver became slightly enlarged, and resilience was lost.

A month before her death, my attention was called to a fecal discharge, which gave her some temporary relief. It contained portions of a cyst, some as large as the segments of an orange, and having attached to their inner surface a number of pedunculated sacs, of the size of a pea. The microscope showed with these hooklets, evidencing their hydatid origin. No more came away, and I failed to obtain a *post-mortem* account to confirm my view that the hydatid fragments had come from a pill-box cyst which had opened direct from the liver into the intestine. The portions were too large to traverse the hepatic duct; nor was there at any time signs of jaundice.—*British Med. Jour.*

**AN ANECDOTE OF ABERNETHY.**—When the Rev. Joseph Tuckerman, D.D., of Boston, Mass., consulted Abernethy, on his first visit to England for his health, forgetful of the doctor's well-known antipathy to circumlocution, he expatiated upon the importance of health to him as the pastor of a "little parish in Chelsea," about which he indulged in some very natural but rather untimely regrets,

until the impatient physician cut him short with "no matter about your little parish—go home and build a barn." Though inclined at first to resent this unsympathetic dictum, the reverend gentleman followed the advice, and found it precisely adapted to his case; he secured thereby exercise, and had a mechanical employment that occupied his attention at the same time; and when the barn was finished his health was restored.—*Medical Record*.

**A NEW PRIZE.**—Prof. Louis Elsberg offers two prizes:—one for an illustrated report of the clinic of diseases of the throat at the University Medical College; the other for an anatomical preparation of the pharyngo-nasal space. These prizes are open for competition to all medical students.—*Ibid*.

**NEW MEDICAL COLLEGE.**—A faculty of a new Medical College has been organized at Indianapolis, Indiana. An effort will be made to raise \$100,000 for an endowment.—*Ibid*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**BOOKS, &c. RECEIVED.**—Report of the Metropolitan Board of Health, New York, 1868.—Annual Address delivered by W. O. Baldwin, M.D., before the American Medical Association, at New Orleans, La., May 4, 1869.—Hygiene in its Relations to Therapeutics. By Alfred L. Carroll, M.D. A paper read before the New York Medical Journal Association, June 25, 1869.—Transactions of the Medical Association of the State of Alabama, Annual Session, 1869.

**DIED.**—In Cambridge, John C. Hayden, M.D., aged 73.—At East Sonerville, 73<sup>rd</sup> inst., J. Henderson, M.D., 60 years 8 months.—At Dedham, 12th inst., Dr. Jeremy Stimson, 86.—At Walpole, 13th inst., Dr. Eben Stone, 71 years 10 months.

**DEATHS IN BOSTON** for the week ending August 14, 124. Males, 61—Females, 63.—Accident, 4—disease of the bowels, 1—congestion of the brain, 3—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 33—cholera morbus, 3—consumption, 14—contusions, 1—croup, 1—diarrhea, 5—dropsy, 2—dropsy of the brain, 1—dysentery, 6—typhoid fever, 2—gastritis, 1—disease of the heart, 2—infantile disease, 3—insanity, 1—intemperance, 1—disease of the kidneys, 3—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 2—mortification, 1—old age, 4—paralysis, 1—peritonitis, 2—pleurisy, 1—premature birth, 1—disease of the spine, 1—stone in the bladder, 1—syphilis, 1—tumor, 1—ulcer of leg, 1—unknown, 7—whooping cough, 3.  
Under 5 years of age, 68—between 5 and 20 years, 7—between 20 and 40 years, 20—between 40 and 60 years, 13—above 60 years, 16. Born in the United States, 83—Ireland, 41—other places, 12.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, AUGUST 26, 1869.

[VOL. IV.—No. 4.]

## Original Communications.

### SUBCUTANEOUS INJECTION OF CORROSIVE SUBLIMATE IN SYPHILIS.

By EDWARD WIGGLESWORTH, JR., M.D., Boston.

ATTENTION is called in Nos. 14 and 17 of this Journal to some experiments made by Dr. O. Max-Van-Mons in the hospital at Pacheco, and reported in the Academy of Brussels in January of this year, to test the value of hypodermic medication in established cases of syphilis. The drug used in these experiments was calomel; the use of corrosive sublimate is, however, preferable, as calomel must first meet the alkaline intestinal fluids before it can be wholly decomposed and absorbed.

M. Jeannel, in his "Theory of the dissolution of calomel in the organism,"\* says: "The alkaline carbonates are the chief decomposers of calomel; in the presence of alkaline fluids, fats dissolve the oxide of mercury proceeding from the decomposition of calomel; the alkaline chlorides in even concentrated solutions produce only a comparatively insignificant decomposition of calomel. If it be true, as Mialhe states, that the chloride of mercury under the influence of alkaline chlorides at the temperature of the body gives always more or less corrosive sublimate, it would still be erroneous to hold with him that it is to this partial transformation that the calomel owes its medical properties. In fact, but a small part of the calomel taken can be dissolved in the stomach in the presence of the acid fluids which contain chloride of sodium; and the more considerable decomposition of the calomel certainly takes place in contact with the alkaline intestinal fluids. Now come the fats. A long series of experiments has proved that, in mixed fluids composed of water, alkaline bicarbonates and fat oil, a very considerable proportion of oxide of mercury proceeding from the decomposed calomel passes in solution into the fat

bodies; this oxide then loses the energy of its chemical affinities, and can be emulsified and absorbed without producing any local irritation. This theory explains why the action of calomel is slow and generally harmless.

"This action is almost nothing as long as the drug remains in the stomach in contact with acid and faintly chloridized fluids. It shows itself as soon as the drug arrives in the intestine, where it meets an alkaline fluid, giving birth to bichloride, but here albumen and fats are at the same time interposed, and these weaken or annul the irritant action of the soluble mercurial salt and of the oxide resulting from the decomposition of the calomel. The mercury is absorbed in the form of an albuminate or of a fatty-acid salt."

The treatment of syphilis by hypodermic injections of corrosive sublimate was introduced to the medical profession by Dr. Lewin of the Charité Hospital at Berlin, who has now in press a work on this subject. Dr. Lewin has published a report\* of 500 cases thus treated. As unfavorable incidents of this treatment he mentions the pain resulting from the caustic property of the sublimate, which, however, was never of long duration or of much importance; inflammation of the skin, and suppuration at the place of injection, can be almost entirely avoided by refraining from the use of concentrated solutions, and by injecting only into parts as remote as possible from lymphatic glands. Toxic manifestations may present themselves after  $\frac{1}{2}$ –1 gr. doses, but do not appear after the usual small doses  $\frac{1}{4}$ – $\frac{1}{2}$  gr. The more moderate grade of intoxication (gastric pain, cardiac pain, constipation alternating with diarrhoea, restless sleep and languor) is to be treated with small doses of opium, the higher grade (colic, vomiting, diarrhoea, vertigo, fainting, coma and reduction of the action of the pulse) by stimulants, as wine, quinine, ether, &c.

\* Gazette Hebdomadaire de Médecine et de Chirurgie, No. 12, March 19th, 1869, p. 189, and Journal de Médecine de Bordeaux, Feb., 1869.

\* Lewin Vebler Behandlung der Syphilis mit Sublimat-injectionen. Annalen des Charitékrankenhauses, 1868, Bd. xiv.; p. 121–762.

Salivation, once regarded as a sort of crisis in the treatment of syphilis by mercury, should be avoided by all possible means. It is a sign of the general saturation of the body with quicksilver, and it is remarkable that even after such small doses as are absorbed by the system in this method of treatment, salivation is, unfortunately, more frequent than in the treatment by innunction. In a large number of cases the addition of morphine to the fluid used as an injection was proved to be a prophylactic against the stomatitis. The mouth was most often affected when, simultaneously with the treatment by injection, a course of iodide of potash was administered.

With regard to relapses, Lewin's statistics show that their occurrence after this treatment is 50 per cent. less frequent than after other modes of treatment, whether mercurial or vegetable. The fewest relapses occurred after a simple uncombined treatment by injections, the greatest number after the combination of the same with treatment by sarsaparilla and sweating, and a lesser number after the combination with iodide of potash. The combination with chl. pot. (10 gr. 1-3 times daily) proves also of no avail against relapses, although it is of service against salivation.

After the simple treatment by injections (which does not forbid the simultaneous employment of remedies for acute or chronic catarrh, serofula, tuberculosis, anæmia, &c.), not only was the number of relapses diminished, but also their severity. The relapse demands on an average, for its cure,  $\frac{2}{3}$  gr. sublimate less than the original syphilis. Two affections only do not yield to the subcutaneous treatment: syphilis of the bones, and of the brain.

The advantages of the treatment by injections over other methods are the following, according to Lewin:—I. The quickness with which the syphilitic appearances are caused to vanish. This quickness is in exact proportion to the amount of the daily injected doses of sublimate. If  $\frac{1}{2}$ – $\frac{3}{4}$  gr. be injected *pro die*, in two or three doses, violent cases of iritis recover in from five to seven days. This quick cure, which, however, presupposes prudence in the management of the patient, has been employed by Lewin in other forms of syphilis with surprising results. II. The certainty and regularity of its results. Lewin's observations extend over some 900 cases of various degrees of severity. The result was always a thoroughly satisfactory one, with the exception only of cases of bone or brain syphilis. III. The relatively small number and

the mildness of the relapses. IV. Ease of administration, and accuracy in the measurement of the doses; and the forbearance it displays towards the much abused digestive organs.

Dr. Kohn, of Vienna, having called attention\* to these results of the experiments of Dr. Lewin, this method of treatment was employed also by Dr. Derblich, an Austrian Surgeon of Infantry, who thus reports† his most favorable case. "A musician of 60th Regt. Infantry, æt. 21 years, acquired a hard chancre in 1865. Came under my supervision Feb. 27th, 1867. He was a weak, anæmic and easily excitable youth. Reported his last coition as taking place six months before this date, by which coition his chancre, at that time still remaining and still indurated, was broken open, and in spite of wet bandages not yet healed. Patient hoarse; condylomata lata around anus; position of frenum occupied by a chancre, hard as cartilage and shining like parchment, an inch in length and with a slight secretion; glands in groins, elbows and neck enlarged; angina; exantheme on soft palate; on left tonsil two large raised plaques; roseola on breast and back. Patient had been already treated by innunction, which fact, joined to his physically weak condition, induced me to make use of subcutaneous injections.

"1st day—Injected  $\frac{1}{4}$  gr. sublimate dissolved in 10 gr. aq. dest. under a fold of skin on the inner surface of the left upper arm. This was followed immediately by a sensation of weight and pain in arm, disappearing in half an hour.

"2d, 3d and 4th days injected a similar amount into the right and left buttocks and right fore arm respectively.

"5th day—Injected right breast. In each case only momentary pain at point of application. After 5th injection slight dyspnoea lasting  $\frac{1}{4}$  hour, and two liquid stools with slight colic.

"6th day—Injected left forearm. Roseola has disappeared.

"7th to 16th days—Injected daily  $1\frac{1}{2}$  gr. sublimate in various places. Once a slight subcutaneous hæmorrhage around wound which was in this case on the thigh. Once slight œdema and sensitiveness, the injection in this case being in the left groin. Both cases were relieved in a few hours by wet bandages. In the night of the 16th day severe salivation made its appearance, and before the morning visit some  $\frac{3}{4}$  vi. sa-

\* Wiener Medizinische Presse, No. 11, 1868.  
† Ibid., No. 12, March 22d, 1868.

liva had been ejected. Gums red, but neither swelled nor painful.

"On this night loss of sleep, otherwise general health good. Appetite had increased. Patient looked stronger and was more cheerful. Chancre no longer hard. Ulcer in throat healed. The glands before mentioned but slightly swelled. Injections were stopped. Since then the condylomata have disappeared, and patient may be considered cured, so far, at least, as we dare speak of a cure of syphilis. Time of treatment four weeks. Whole amount of sublimate used, gr.j. To military hospitals in particular I recommend this mode of treatment, on account of

"I.—Its security. The regimental surgeon cannot always be present to determine exactly the amount used in an inunction. The injection, however, he makes himself, knowing its amount and strength.

"II.—Its cleanliness, which in inunctions can only be obtained by the use of much soap and ley, and frequent change of garments and bed-clothes.

"III.—Its harmlessness as regards other patients. As is well known, the salve evaporates during inunction in a hot room, and causes salivation in other patients in the chamber who are not using any form of mercury.

"IV.—Its cheapness. The cost of the whole amount of sublimate required for the treatment is almost nothing.

"The arguments against the injection appear to me to have but little weight. The inflammation of the skin is slight and yields to wet bandages. Any hardness remaining after the injection can be dispelled by tincture of iodine. One danger alone there is. Prof. v. Nussbaum, in an experiment on himself, had the misfortune to wound a vein. Other cases have also occurred, but none is yet known of death from this cause, though hypodermic injections have been used for years. Moreover, such cases yield to tampons and wet compresses. In general, it is only necessary to select for the injection those parts of the body where the skin is loose, the veins few, and hairs absent, for wounding a hair bulb produces violent pain. It is well to warm the solution before injecting it, and to apply subsequently a bit of plaster to the wound. The best results may be hoped from this method, provided the physician can overcome the antipathy of the patient to anything like a wound, and is willing himself to make the slight extra exertion."

The most recent work published on this

subject\* says, "For the treatment of syphilis by hypodermic injections use a solution of 4 gr. of sublimate to 1 ounce aq. dest. Inject 15 gtt. of this, i.e.,  $\frac{1}{2}$  gr. sublimate. This is invariably followed by pain, to obviate which, add  $\frac{1}{10}$ — $\frac{1}{4}$  gr. acet. morph. and a little glycerine. Should we wish to inject the large dose ( $\frac{1}{4}$  gr.) it is better to inject half the quantity in two places. The syringe should be thoroughly cleaned after using, and smeared with oil, and its permeability retained by a fine silver wire or a bristle. The preferable places for the injection are the outer sides of the extremities, the thorax, shoulders, loins and nates; in short, avoid those parts of the body in whose vicinity the lymphatic glands lie. The best time for the injection is the forenoon; if it is wished to give two injections on the same day, the second should come six hours after the first. The maximum dose of the injection is  $\frac{1}{4}$  gr. sublimate; a stronger concentration of the liquid is to be avoided on account of its local irritating property.

It is not necessary that the patient should remain in bed during the treatment, provided he will preserve a regular temperature and a moderate perspiration, wear a woolen shirt and avoid exertion. His daily food should be reduced to  $\frac{2}{3}$  of its normal amount. Food difficult of digestion should be avoided; as fats, salts, acids and spices. Since, to obtain the best results from a mercurial treatment, it is necessary to guard against salivation as much as possible, the patient must be directed to brush his teeth often and to rinse his mouth frequently with cold water and especially with a solution of chloride of potass. As regards the number of injections, 2 $\frac{1}{2}$ —3 gr. sublimate are generally necessary for a cure, and this quantity should be divided among 15–16 injections."

(To be continued.)

## PENETRATING WOUND INVOLVING THE FEMALE GENITO-URINARY ORGANS.

By W. G. Frost, M.D., Freeport, Me.

Mrs. G. M. L., a large, robust woman, æt. 38, weighing 190 pounds, while attempting to climb upon a hay-mow, slipped and fell astride a stake of hard wood an inch and a quarter in diameter. The stake first encountered the inner part of the right thigh, roughly abrading the skin, and, passing on, it struck three fourths of an inch to the

\* Compendium der Geschichte, Pathologie und Therapie der venerischen Krankheiten. Von Friedrich Wilhelm Müller, M.D. Erlangen, 1869.

right of the vulva, and, carrying the parts before it, entered the vagina, which it followed about four inches; then, taking a forward direction, it ruptured the bladder, entered the anterior cul de sac, pushing the parts before it, having entered the body ten and one half inches. I found her suffering extreme pain and losing considerable blood, there being no collapse nor chills. The diagnosis at the time was rendered difficult by the great amount of adipose tissue of the parts, and the menses being present the actual hæmorrhage was with difficulty ascertained. But the stake bore evidence of the depth of the wound, and the urine draining from the vagina indicated its nature. As I could not discover protrusion of the bowels, I judged that the abdominal cavity was intact.

I gave her one fourth grain doses of morphia often enough to allay the pain, quiet nervous irritation and produce sleep. Then

R. Ant. et potass. tart., gr. i.;  
Magnes. sulph., ʒi.;  
Aquæ, ʒiv. M.

A dessertspoonful every two hours to anticipate the inflammatory fever. I hesitated somewhat in applying cold applications, the menses being present, but finding the next day that the symptoms were indicating a considerable loss of blood, I applied them freely, and gave internally gallic acid and opium; after which the hæmorrhage ceased entirely. No inflammatory fever followed, and suppuration was established in three or four days. About this time I found the bladder about half filled with blood-clots and pus, which I evacuated by injecting warm water into the bladder through the urethra and allowing it to run out by the vagina. This operation was repeated for a number of days. The bowels were freed every other day by enemata of castor oil. A gum-elastic catheter was kept in the bladder, and the patient put on a light diet. Under this treatment she steadily improved for a fortnight, when the left leg began suddenly to swell, involving the whole limb from hip to toes, but this readily subsided under hot aciculated fomentations. The case after this went on favorably, and in seven weeks she left her bed and walked to the dining-room. The rupture of the bladder left a vesico-vaginal fistula one fourth of an inch in diameter, readily relieved by a surgical operation. The patient at this time, eighteen months after the injury, is enjoying her accustomed health.

July 12, 1869.

## Selected Papers.

### ON THE IMPORTANCE OF THE STUDY OF PHYSICAL SCIENCE IN MEDICAL EDUCATION.

An Address delivered at St. Mary's Hospital, May 22, 1869, by WM. ROBERT GROVE, Esq., Q.C., F.R.S.

#### IN TWO PARTS.—PART II.

THE immense importance of scientific education for medical students will, I trust, induce all interested in the subject to aid the endeavors now being made to introduce the study of physics into public schools. A committee of the British Association, appointed during my presidency, recommended in its report that three hours in the course of each week should be devoted to science. Even this modest suggestion has been deemed by some of those who are well acquainted with the difficulties of changing traditional habits of long standing to be too daring an innovation; but I trust that this small allotment of time may be granted without derogating substantially from the accomplishment of construing, parsing and composing Greek verses. Not that I at all condemn classical or historical education. To understand the present we must read the past; and having a long course of time to select from, we can take the best authors as our guides; but I should incline to let a young man read Shakspeare as well as Virgil, and give him a dose of Galileo as well as of Aristotle.

To my mind there is a great fallacy in the prevailing notion that the most successful education is that which is restricted to a very limited range of subjects. Of course, there is great error in the opposite extreme; but I am sure many of those I address will bear me out in saying that the mind is rendered more elastic, and that the student learns more by some variety in study. Many, who cannot get beyond a limited degree of attainment in one given line, will be capable of reaching that and an equal degree in three or four other pursuits. We see this strikingly exemplified in accomplishments; a man may never pass a certain limit of excellence in playing the flute, in cricket, billiards, or fencing, though he devote all his time to one of them, yet he may attain a fair amount of skill in all. Recent experience has proved that those whose previous training has been formed on a wide basis have shown the greatest aptitude even for special study.

It is too long since I graduated at Oxford

for me to pronounce on the present state of our Universities. What then forcibly struck me was the comparative neglect of passmen, or those not expected to distinguish themselves, in favor of those who promised to raise or keep up the status of their respective colleges. Yet the former need the attention of the tutor far more than the latter; and there are few whose minds will not respond to the teacher's efforts, if the right note be struck.

I am told that, in the London medical schools, somewhere about one thousand young men are educated. The need of science in the medical department of the country ought, if it were useless in other departments, to bring home in a practical form to those having influence on establishments for secondary education the necessity of introducing physical science as a necessary part of the course of study.

Chosen for the task of to-day as having labored in the field of physics, though not of physic, I will venture, at the risk of getting out of my depth, roughly to sketch the relations of science to the healing art, and how illimitable should be the scientific acquirements of the physician or surgeon.

To understand an ordinary machine—*e.g.*, a watch or clock—the action of one force alone has to be considered, such as a falling weight, or the reaction of a coiled spring, &c. In a steam-engine, the consideration of another force—heat—has to be added. In a voltaic battery and its effects, the nearest approach man has made to experimental organism, we have chemical action, electricity, magnetism, heat, light and motion. But in the human body we have all these (and possibly other forces or modes of force of which we are at present ignorant), not acting in one definite direction, but contributing in the most complex manner to sustain that result of combined action which we call life; and so beautifully are all these inter-related, that, as Cuvier could pronounce upon the general characteristics of an animal from examining a single bone or piece of bone, the histologist may now, to some degree, and at no distant future may reasonably be expected to pronounce with tolerable certainty on the temperament and mental habitudes of a man from examining a portion of his skin—a new species of palmistry, founded on knowledge, and not on superstition.

An acquaintance with the motions, sensible and molecular, which the different forces produce in the human body, the means of stimulating them when torpid, of checking

them when too active, of apportioning them by diverting forces from one organ to another, as happens frequently without the physician's aid—what is all this but physical science? Medicines, I need not say here, give no life, though they may take it away; they only promote, arrest, or divert the action of different natural forces on different organs. They may cure the totality of the organic being by such diversion of force, or by destroying derived or parasitic vitality (fungoid growths, which detract from the general apportionment of force, or eat into vital organs); but they do not and cannot create force.

But far more than drugs can do is done by the eminent physicians of the present day in what I may term regulating the movements, internal and external, of the body, after they have, by improved skill in diagnosis, detected the causes of the excess, the deficiency, or the irregularity, of motion which produce the disease. Half the world, in the present day, are said to die of repletion, and half of inanition. It is not, however, mere quantity of food, but its nature and chemical action, which is better and will be better understood; food for repairing the structures; food for enabling them to go on with the varying movements; chemical force transformed into heat and motion, and adapted to habits and circumstances, to exercise and rest, to temperature and climate, to mental activity and sleep. So, with respiration, oxygen enters the lungs an element, and returns in carbonic acid; but in so doing it has enabled the lamp to burn; it has removed carbon that has done its work; it has kept up the involuntary and ministered to the voluntary motions.

Applied to the respiratory functions, chemistry might offer a field of inquiry not much trodden since Dr. Beddoes established the Pneumatic Institution at Bristol; not merely by inhalation of gases *per se*, but by a judicious admixture of small portions of given gases with the ordinary air. Thus a small increase of carbonic acid in the air tends to produce somnolence; might not this be carefully tried in cases of extreme nervous excitability and insomnia? Ozone, again, doubtless has its effect, probably of somewhat a converse character to that of carbonic acid. Such remedies might be free from the disturbing influence on other organs which the administration of sedatives or stimulants by the stomach frequently, always perhaps in degree, occasions.

I offer these crude suggestions rather as

illustrations of my argument than as having any founded reliance on their efficacy. Experiment alone can determine this.

As the engineer gives air, water and coal, to his engine in proportion, and only in proportion, to their expenditure, so should food, air and exercise be apportioned by the physician. The machine, or the part of it that is worn, should have rest and repose; the machine that is rusty should have work. I might suggest a hundred problems relating to the human economy which science alone can and will some day answer. What is the effect of phosphorus on the brain and tissues? Why, when administered, is it poisonous in one form, and innocuous in another? Why do some poisons affect the brain, others the heart, others the stomach? What are miasmata? Do infectious diseases result from a chemical state of the air, or from organic monads contained in it? What is the effect of light on health? Has the inhaled nitrogen of the air any, and what, effect on the organism of animals, &c.? How vast are the fields of inquiry! The dawn of science has even now scarcely succeeded to the darkness of empiricism. Individual and combined effort will, I trust, rapidly bring more light.

Not the least important branch of scientific education is, in my humble judgment, a practical acquaintance with instrumental manipulation. I speak not of the surgeon's appliances—those are an obvious necessity; but of an early familiarity with such agencies as electrolysis, blowpipe analysis, or, above all, the microscope. The first of these—electrolysis—offers a wide field of information to the student. The secondary compounds formed at the poles of a voltaic battery, particularly with organic substances, are most curious and instructive objects of investigation. Blowpipe analysis is also most useful, and the apparatus may always be at hand. As to the microscope, the physiologist's *vade mecum*, I need not insist on its value. More is learned in an hour by the study of one of these, well explained, than by months of reading. Manipulation, moreover, should be learned young; the hand and head thus learn reciprocally to aid each other.

A few words on hospitals. They are, in my judgment, the only charities for which I would not have a prohibitory law of mortmain, not suddenly, but gradually introduced. Mortuary endowments are apt to transmit and clothe with authority the errors of past times; they are apt to be the offspring of caprice or undue persuasion, so

likely to be uneconomically conducted. There are no living vigilant subscribers to scrutinize the application of their funds; and the reproach to a complainant is ever ready, "Why should you interfere? we are not dealing with your money." I cannot recognize the right or advantage of any man being able by a mere flourish of his pen at some particular period of his life, and that generally when his faculties are not in their best state, to dictate how men should act in a distant future, the requirements of which he cannot know, and when he himself would probably have entirely changed his views. Speaking for myself, I would, as a general rule, let the charities (I use the word in its wide legal acceptance) of the day be supported by the people of the day; but I incline to except hospitals for the sick, the infirm, and the deranged; because they are managed by the gratuitous services of medical men; because they afford help to those who most require and can least misuse it; because they are tied to no formulæ, but call into action the most advanced knowledge of the day; because they form the most valuable school for the most valuable knowledge; and because (though this may be common to other charities) they require a permanent local habitation. My observations on endowments are not intended to apply to untrammelled gifts by living men. The test of parting with property, and giving up its enjoyment, by the living and healthy owner, is a tolerable security against some of the abuses I have indicated. The number of Peabodys, moreover, will never, probably, be excessive; but even their gifts should be subject to control, and the State should always have a power of direction and interference.

St. Mary's Hospital and School are, I believe, unendowed; so my words have no present application here; but, having often discussed the subject with eminent men, I take this opportunity of expressing my notions, though much more briefly than the subject demands.

The clock warns me that I must conclude. After delivering prizes, the gaining of which has depended solely on merit, I may be expected to end with the usual encouraging peroration, that industry and ability command success; but I cannot, except in a modified form, agree to this copybook maxim when applied to your future struggles with the world. Doubtless, few who are prudent, energetic, and industrious, fail to attain some fair degree of worldly success; but the race is not always to the swift, or the battle to the



strong. Circumstances affect efforts, promoting, arresting or diverting them. The road to success is often that which a high-minded man cannot travel; he cannot learn to fetch and carry, to subserve the interest of a patron or a mob. I do not seek to undervalue success; duty to yourselves and those whom you may bring into the world, enjoin its pursuit in moderation. But I would fain endeavor to inculcate upon my younger hearers a higher motive than the mere hope of fame, wealth, or power. If these come by an unswerving career, make good use of them; if not, console yourselves with the conviction that those who are said to be in power are frequently the veriest slaves in existence; that the improvement of our race is more promoted by those who think than by those who act; that some degree of martyrdom—not that which trumpets its sufferings, but silent, proud, unappreciated martyrdom—is commonly the lot of those whose labor tends most to advance mankind, for upon them rests the burden of opposing existing prejudices, and unsettling vested interests. Have courage to risk this. Your most noble profession offers the grandest field for human exertion—the widest scope for progressive improvement. To assuage human anguish, to restore the child to the parent, the husband to the wife; to convert despair into hope, and hope into fruition, will be often your lot; to see the least selfish parts of our common humanity, to teach how the individual, how society, may be regulated, so as to produce the greatest sources of happiness—sound minds in sound bodies—belongs to yours more than to any other calling. You will meet with hard rebuffs, but “in the reproof of chance lies the true proof of men.” Meet failure without repining, and success without exulting. Have but one rule of life, “Fais ce que je dois, advienne que pourra.”—*British Medical Journal*.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Surgical Cases in the Service of Dr. GEORGE DERBY.  
Reported by Mr. GEO. B. STEVENS, HOUSE-SURGEON.

*Amputation of Arm; Recovery.*—May 24. The patient, while engaged in shackling cars, had his right arm caught between the bunters. When brought to the hospital, the muscles were bared from elbow to wrist and much torn. There was a compound

and comminuted fracture of the radius at the middle of the shaft, and the lower fragment was cracked for two thirds of its length. On the under surface of the forearm was an opening communicating with the fracture. The hæmorrhage had not been great, and the pulse was of fair strength.

The arm was amputated just above the elbow, by Dr. Derby, by the circular method. Ten ligatures. Sutures, cold compress and tight bandage as usual.

The discharge from the stump, at first watery, became thicker and most healthy. The sloughs which separated from the flaps were trifling, though at one time it looked as though extensive sloughing were to occur. Before the end of a fortnight the ligatures had all come away, and the patient was able to be up and out of doors. The union and contraction of the flaps continued, and five weeks after the operation he left the house with flaps perfectly united, except at one point.

*Amputation of Arm; Death from Exhaustion.*—July 16. The patient had his right arm caught in machinery, by which the integument of the forearm was stripped off, both bones much comminuted, and the muscles ground to a pulp. The hæmorrhage had been very considerable before he was brought to the hospital, and the pulse was very feeble.

The limb was amputated just above the elbow, by the circular method; the amount of blood lost was not great. By stimulants exhibited by the mouth before the operation and by the rectum during its performance, the pulse was increased in strength.

After the operation it was doubtful if the patient would rally, but at the end of four hours (4, P.M.) reaction was established. Stimulants and liquid nourishment were administered at short intervals during the night. On the following morning the pulse was of good strength and not unduly excited. Through the day the patient was comfortable, and took nourishment well. About 6, P.M., however, the pulse had become rapid and feeble, and he was somewhat delirious. He was very freely stimulated through the night, but without avail; he gradually sank, and died at five o'clock on the following morning.

*Burn treated with Dry Earth.*—The patient entered with an extensive but superficial burn covering the right ankle, the dorsum and outer side of the left foot, the ankle and leg for some four inches above, produced by boiling water four days be-

fore. The true skin was very much reddened and painful; there was considerable discharge; some blebs.

Dry earth, finely powdered, was dusted from a dredging-box over the entire burned surface; it was applied at frequent intervals, whenever a moist spot showed itself. In a week's time the earth had absorbed the discharge completely, and formed a nearly impervious coating, so that but two applications a day were required. The pain had quite disappeared. This treatment was continued for three weeks, at the end of which time the scab formed by the earth was washed off. A fine cicatrix beneath appeared. For three days more, castor oil was applied, when the patient left the house with the ulcers nearly closed.

*Abscess over the Knee.*—A young woman entered the hospital with a large fluctuating tumor over the patella of the left knee. It was opened, and a large amount of laudable pus evacuated. Joint not affected. The discharge diminished and the incision healed. At the end of three weeks there was slight stiffness of the knee remaining, from her having kept her bed most of the time.

The case is interesting on account of the probable cause of the abscess. She had been tending in a baker's shop, and for a long time had been in the habit of striking the drawers and pushing them in with her left knee. These blows, long repeated, probably led to the formation of the pus.

*Multiple Abscesses.*—May 4. Mrs. T., *at. 40*, entered on the medical side. Four weeks before entrance had chills and pains all over the body, not following any known exposure. Two weeks before entrance had pain and swelling in both ankles; the next morning the legs and the right forearm were somewhat swollen, with great pain in the joints. Two days before entrance, trouble began with right eye. When transferred to the surgical side, there were soft, fluctuating tumors at various points:—one on the ulnar side of the left forearm, just below the elbow; another over the styloid process of the ulna of the right arm, with a third corresponding in situation to the one upon the left arm; a fourth upon the left leg over the inner malleolus; and a fifth in the calf of the right leg. There was iridochoroiditis of the right eye. The patient was anemic and correspondingly weak; had no pain, except in right eye, and this was aggravated at night. She was ordered six ounces of wine a day, and twenty drops of the tincture of the muriate of iron three times a day.

During the following four weeks all the

above abscesses were opened, those over the ankle and at the corresponding points on the two arms being incised on the two days following the patient's entrance. Those over the wrist and in the calf of the leg were at first quite small and appeared to diminish in size, so that there was some prospect of their disappearing without an opening. About four weeks after the patient's entrance, having increased in size, they were likewise opened. All the incisions thus made healed in a comparatively short time, with the exception of the one over the ankle, where pus burrowing among the muscles required several counter-openings. The trouble with the right eye went on to an abscess, which was evacuated through the ocular conjunctiva in about ten days. During the formation of this abscess the pain in the eye was excessive, relieved, however, by the spontaneous evacuation of the pus; the sight of the eye was lost.

While this extensive suppuration was going on at different points, the strength of the patient was kept up by the strongest and most nourishing food, with the wine and iron ordered at entrance; her appetite happily continued good throughout. June 24th, she was discharged, well.

*Compound Fracture of the Leg.*—April 7. F. N., a healthy young man, *æt. 20*, fell a distance of about ten feet, striking upon the right leg. He entered the hospital with a compound fracture of both bones of the leg at the junction of the middle and lower thirds. The upper fragment of the tibia protruded on the inner side of the limb to the extent of an inch, pinning the integument and muscle firmly beneath it. Very little hæmorrhage. Under ether, the fragments were brought into apposition without division of the soft parts, and the limb placed in a fracture box padded with sheets and oakum. The air in the wound was displaced with an aqueous solution of carbolic acid, of the strength of a drachm and a half of the acid to a pint of water. The wound was covered with lint soaked in a mixture of carbolic acid and castor oil, one part of the former to twenty of the latter. The oakum of the fracture box to be kept saturated with the above aqueous solution of carbolic acid.

At the end of one week the strength of the carbolic acid and castor oil was increased to one part in five. During the three weeks following the injury the constitutional disturbance was trifling. At the end of this time the wound was examined, and found to contain not more than a drachm of

pus and to be filled with healthy granulations. The limb was continued in the fracture box and dressed with simple cerate.

May 5, four weeks after the accident, an abscess had formed on the outer side of the compound opening, and was freely laid open. Union of the fracture had been going on well. During the three weeks that carbolic acid was used the amount of suppuration was almost nothing. Suppuration continued to be abundant for six weeks after its discontinuance; the discharge from the compound opening was very free; abscesses which formed in the vicinity were closely followed with the knife. Ten weeks after the accident the discharge from the original wound and from the incisions had much diminished; the ulcers, which were granulating well, were strapped. Up to this time the leg had been continued in the fracture-box, with the exception of a short time, when a carved outside splint was employed. Dry bran was used for a few days in the fracture-box while the discharge was profuse.

July 14, patient discharged; ulcers had all healed, and the union was firm, so that the limb could support the weight of the body.

During his confinement to bed, the general condition of the patient was all that could be desired, and no drugs were used, except an occasional cathartic.

## Bibliographical Notices.

*The Mechanism of Dislocation and Fracture of the Hip, with the Reduction of the Dislocations by the Flexion Method.* By HENRY J. BIGELOW, M.D., Professor of Surgery and Clinical Surgery in the Medical School of Harvard University, &c. Philadelphia: Henry C. Lea. 1869. pp. 148.

THE Medical Profession in this vicinity has long been familiar with the original researches of Dr. H. J. Bigelow in regard to Dislocations of the Hip. Apart from his annual lectures to the large medical classes of Harvard University, several public demonstrations of his views have been made by him at different times, particularly before the Boston Society for Medical Improvement in 1861; the Massachusetts Medical Society in 1864, and the American Medical Association in 1865. The publication of

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this volume has therefore been looked for with general interest, that others, mastering the details of so convincing an exposition, might learn from its author how to convert the reduction of any dislocated hip from an ordeal, terrible alike to surgeon and patient, into a process, gentle, rapid and unailing.

The great work of Sir Astley Cooper, the last edition of which appeared in 1842, first introduced order into the chaotic subject of dislocations and fractures of the hip; and still holds the place it owed to his large experience and high professional position. Malgaigne, in a treatise published in 1855, replete with the erudition of its learned author, undertook, by accurate and exhaustive analysis of cases, and by experimental observation, to construct more tenable theories than had yet been put forward. Hamilton in our own country, and Gürtl in Germany, successfully carried out a similar and even more elaborate enterprise. But, with the exception of the employment of anæsthesia, first applied to these cases by the late Dr. Samuel Parkman, of Boston, no practical advance in the treatment of luxations of the hip has been introduced into general use since the time of Cooper; for reduction by manipulation, old as the art of medicine, although revived in modern times, is not at the present day generally adopted. Pulleys and dynamometers still figure in the pages of medical journals, and patients have been pulled upon within the year, in Paris and in London, until life was threatened, when putting in their hips ought to have been the work of but a moment.

Dr. Bigelow's doctrines hinge upon the recognition of a great anatomical fact connected with the structure of the capsule of the hip-joint, from which, as a fundamental proposition, two corollaries are drawn, viz.:

I. That the position of the limb in all the regular dislocations is due to the capsule alone, and that neither the muscles (the obturator internus excepted), nor the peculiar contour of the pelvic bones, nor the ischiatic notch, need be considered in reduction.

II. That, keeping in mind certain peculiarities of the capsule, the reduction of any dislocation can be readily and methodically accomplished, without pulleys; and that by these peculiarities alone are the phenomena of reduction capable of being explained.

The capsular ligament of the hip-joint, so frequently and easily dissected, seemingly so simple in its anatomy, contains, nevertheless, within itself the secret mechanism of all the hip dislocations. Let us quote from Dr. Bigelow his description of this essential starting point.

"The ilio-femoral ligament has been usually described as re-enforcing the capsule by a single fibrous band, extending from the inferior iliac spine to the inner extremity of the anterior inter-trochanteric line and playing no very important part in health or injury. But it will be found, upon examination, to take its origin from the anterior inferior spinous process of the ilium, and to be inserted fan-shaped into nearly the whole of the oblique 'spiral' line which connects the two trochanters in front—being about half an inch wide at its upper, or iliac origin, and but little less than two inches and a half wide at its fan-like femoral insertion. Here it is bifurcated, having two principal fasciculi, one being inserted into the upper extremity of the anterior inter-trochanteric line, and the other into the lower part of the same line, about half an inch in front of the small trochanter. The ligament thus resembles an inverted Y, which suggests a short and convenient name for it.

"The divergent branches of the Y ligament are sometimes well developed, with scarcely any intervening membrane. In other cases the intermediate tissue is thicker and requires to be slit or removed before the bands are distinctly defined, and sometimes the whole triangle is of nearly uniform thickness." (pp. 17, 18.)

Winslow and the brothers Weber did not allow this feature of the capsular ligament to escape them, and Weitbrecht (1743), a principal authority on the ligaments, distinctly specifies the forked arrangement of the anterior part of the capsule, and speaks of it in the following terms: "*Partim anteriùs versus collum femoris et trochanterem minorem procedit, partim vero lateraliter versus exteriora progreditur et circa radicem trochanteris majoris in tuberculo laterali terminatur. Atque binæ hæc divaricationes, una cum linea obliqua, figuram triangularem constituunt.*" But so far as modern anatomical works are concerned this intrinsic point passes unmentioned, or, under the guise of the ilio-femoral ligament, is so inadequately set forth, that its importance has in no degree been recognized.

Dr. Bigelow's first deduction, viz., that,

apart from the obturator internus muscle, the capsule alone (and chiefly the Y ligament) is the agent which gives its characteristic deformity to every dislocation of the hip, and hinders the reduction, is an original one, at least in its positive and absolute assertion. So recently as 1865, in a discussion upon femoral luxation, the remark passed unchallenged at the Société de Chirurgie that "obstacles due to other causes than muscular contraction were chimerical;" and although Boyer, Gunn and others have assumed that the capsule was a controlling influence, they either loosely stated it as a fact, or claimed it in a general way for any part of the capsule, or recognized it only in a single one of the many dislocations. No writer has heretofore realized that upon the anterior portion of the capsular ligament, that part here designated as the Y ligament, depends the entire mechanism of all regular dislocations. Our author states his case as follows:—

"Without denying that muscular fibre exerts both an active and a passive force, it is here assumed that the muscles play but a subordinate and occasional part in hindering reduction, or in determining the character of the deformity, and that this is chiefly due to the resistance of a ligament whose simple mechanism will explain the phenomena both of luxation and its reduction. The theory advanced recognizes the anterior portion of the capsular ligament as the exponent of the total agency of the capsule in giving position to the dislocated limb, and what is more important, as so identified with the phenomena of luxation that reduction must be accomplished almost wholly with reference to it." (pp. 16, 17.)

The varying attitudes of the limb in the different luxations depend upon the integrity of this ligament, or of one or the other of its branches; both limiting the degree of extension, while the external also restricts eversion. The situations taken by the head of the bone, due to the position of the femur at the time of the injury, or to the direction of the dislocating force, are all controlled within a certain range by its powerful fibres, the strength of which is such, as is conceded by anatomists and demonstrated by the author's experiments (p. 19), that an entire rupture occurs only under extraordinary circumstances.

To show how great is the variety of dislocations explained, and explained only, by the action of the Y ligament, we quote Dr. Bigelow's classification of these injuries.

"I. The REGULAR DISLOCATIONS, in which one or both branches of the Y ligament remain unbroken.

1. Dorsal.

2. Dorsal below the tendon. (Ischiatic notch of Cooper.)

3. Thyroid and downward.

*Obliquely inward on the thyroid foramen, or as far as the Perineum. Vertically downward.*

*Obliquely outward as far as the Tuberosity.*

4. Pubic and Sub-spinous.

5. Anterior Oblique.

6. Supra Spinous, } *External branch*

7. Everted Dorsal, } *broken.*

Both branches entire.

"II. The IRREGULAR DISLOCATIONS, in which the Y ligament is wholly ruptured, and whose characteristic signs are therefore uncertain." (p. 27.)

Under these heads all recorded forms of dislocation find their place. Several have heretofore been considered anomalous and irreducible and are of infrequent occurrence in practice, but each and all can be produced at will and are instantly reducible on the dead subject.

All of the above-named dislocations are reducible by "manipulation," or, as more correctly designated by the author, "the flexion method," the principal feature of which consists in the flexion of the limb, thereby relaxing the Y ligament, a procedure the very opposite of that inculcated by Sir Astley Cooper, by whose process of extension in the axis of the body, with pulleys, &c., to which, unhappily, the authority of his name has given a currency the world over, this ligament was brought into the line of its greatest resistance.

Reduction by manipulation is sometimes called the "American method," for it is not a common practice in England or France. Dr. Nathan R. Smith, in 1831, explicitly describes the process of "free flexion, outward rotation and abduction," as practised by his father many years before. The same thing was described in France by Despres in 1835. In 1852 it was also advocated by Dr. W. W. Reid, of Rochester, N. Y., as applicable to dorsal dislocation only; but as Dr. Bigelow remarks, "these and other advocates of the flexion method in this country and abroad were anticipated by Hippocrates, so far as the essential principle of flexion is concerned." (p. 30.)

In all previous comments upon this method of reduction, we are struck by the want of success in any attempt to eliminate from the process a governing principle, or

to determine why every now and then it utterly failed, and only succeeded in the simplest form of dislocation. In England the question has been avoided by the subterfuge of considering it a "knack." The rule "lift up, bend out, roll in," triumphs over the obstacle in one case, in the next it is utterly defeated and a diminished degree of flexion, or some other varying manoeuvre, overcomes the difficulty. In spite of the diligent study of dislocations on the dorsum and their reduction by a ready method, and the fact that occasionally some of the other varieties are reduced by the process, no general law has been hinted at. While Astley Cooper, Nathan Smith and Reid looked to the muscles as a sole source of resistance, most later writers have evaded the inquiry altogether. Such careful observers as Gunn, Busch and Tillaux, who have come so near the point and yet not reached it, bewildered by the intricate maze which the tissues about a dislocated hip present when laid open by a dissection, have been able only to make out that it was the "remaining capsule" which hindered reduction, and have failed to discover that flexion, even in the restricted range hitherto conceded to it, was successful, because it relaxed the Y ligament.

It recalls the rack and the inquisition to contemplate in the writings of Cooper and others the severe means adopted to overcome the resistance of this ligament. A single illustration is worth recalling as a curiosity.

"On the day of the accident two attempts were made to reduce the dislocation by pulleys, but without success; three days later a third equally unsuccessful was made, although continued for nearly an hour. At the end of another three days, when two pounds of blood had been taken and he had been nauseated by two grains of tartarized antimony, extension was made with the pulleys for an hour and a half, during which time he took two grains more of tartarized antimony. The attempts, however, did not succeed." (COOPER, Case L.)

Contrast this with the simple process, assuredly a genuine *méthode de douceur*, by which the head of the bone may be replaced in its socket by a single slow movement of "from a quarter to half a minute, or a single rapid sweep of two seconds." (p. 50.)

It is not to be supposed that all obstacles to reduction are overcome by simple flexion. There is a procedure described by Dr. Bigelow, called "Enlarging the Capsular Orifice," which, while it certainly has never before been suggested, is evidently, unlike many

new things, an innovation of great value. After alluding to the alleged difficulty of replacing the head of the bone when it has escaped by a small aperture in the capsule, and to the advice given by Malgaigne, Gunn and others to place the bone "in the position it occupied when luxated, with a view to its re-entering the socket by exactly retracing its path," the author goes on to say:—"But while this path cannot always be known, any difficulty is easily obviated by carrying the head of the bone toward the opposite side of the socket and thus enlarging the slit; a simple manoeuvre, easily accomplished by circumducting the flexed thigh across the abdomen in a direction opposite to that in which it is desired to lead the head of the bone. This expedient, of which I have had occasion to avail myself, will, as I believe, be in future generally adopted, when any such difficulty is encountered in reducing the hip. The subcutaneous injury is trifling, in comparison with that resulting from a protracted and ill-planned manipulation, or from the brute force of pulleys." Infinitely less so at all events than the hazardous expedient of Reid for accomplishing the same end, "to make an incision down to the head of the bone and open the capsular ligament sufficiently to admit the return of the head into its place." (p. 34.)

According to Dr. Bigelow the dislocation upon the dorsum has a range of position from the tuberosity of the ischium to the hollow of the ilium, varying with the extent to which the rotator muscles or the capsule are ruptured by the injury, the different paths by which the head of the bone may make its way between these muscles, or the effect produced by efforts at reduction with pulleys. The so called ischiatic dislocation is therefore only a variety of dorsal dislocation, and owes its peculiarity, viz., a little more flexion and inversion, solely and entirely to the resistance caused by the tendon of the obturator internus muscle, below which the neck of the femur is caught; hence the name applied by Dr. Bigelow, "Dorsal below the tendon."

The dislocation upon the sciatic notch it will be remembered has always been an object of surgical despair. Sir Astley Cooper declared that the "reduction of this dislocation is in general extremely difficult," and gives cases in which he failed to accomplish it. Mr. Syme speaks of the risk of dorsal dislocations becoming sciatic, and in a work so recent as Holmes's Surgery it is remarked "that, in our attempts to reduce a dislocation upwards (on the dorsum), the

head of the bone may slip into the sciatic notch, there is abundant evidence." Dr. Bigelow, on the contrary, says, "I believe that no dislocation upon the ischiatic notch is worthy of the name—that no satisfactory or practical result can be based upon this distinction alone—and that it is also an error to suppose that during reduction the femur ever notably 'slips into the sciatic notch,' or that the sciatic notch ever offers any obstacle to its reduction." (p. 59.) The part which the obturator muscle plays, combined with the Y ligament, as an obstacle to reduction in this form of dislocation (dorsal below the tendon), and the absolute necessity of flexion to accomplish reduction, are elaborately explained at pp. 65-66 and by the accompanying illustrations. We regret that space does not permit us to quote from them at length.

The dorsal and so-called sciatic dislocations are undoubtedly the most common varieties. Of the thyroid and downward dislocations, which the author divides into four kinds, he says:—"These dislocations, if we except that upon the thyroid foramen, are comparatively rare. In view of the frequency of accidents dislocating the bone while flexed or abducted, the rarity may be explained by the readiness with which the extreme downward luxations are converted into those upon the thyroid foramen or the dorsum." (p. 70.) How this tendency is controlled is shown as follows. "When the thigh is thus strongly flexed, it is easy to imagine that the head of the femur, suspended by the Y ligament beneath the lower margin of the socket, pauses there, hesitating between the thyroid and the dorsal luxations. It has been found at various points in the interval between these luxations, and directed into one or the other in attempts to reduce it." (p. 75.) The convertibility of the common dislocations one into the other by virtue of the Y ligament, which holds the femur as the yard of a derrick is held by its tackle, and upon which as a central axis the limb is swung in different directions, is a point of interest very strikingly set forth.

The description of the "pubic" and "sub-spinous," luxations, and of the "anterior oblique" luxation, which is a variety of the supra-spinous, completes the account of those which owe their anatomical features to the unruptured Y ligament.

The "supra-spinous" luxation, in which the head of the femur gets hooked over the Y ligament and cannot be reduced except by being unhooked, and the "everted dorsal," in which the limb may be everted at

various angles, only occur when the external branch of the ligament is ruptured. Both these dislocations, together with the anterior oblique, here so clearly explained, are classed by Cooper, Malgaigne, Hamilton and others, as anomalous forms. Dr. Bigelow remarks that although rupture of the outer fasciculus of the Y ligament deprives the operator of a part of the advantage of rotation, yet the limb, after flexion and rotation inward, may be readily reduced by direct traction towards the socket with local guidance.

In all the regular dislocations the position of the head of the bone may be determined by the direction in which the internal condyle faces. In this hint we find one of many evidences of the familiarity of the author's own mind with the subjects of this volume, which he modestly terms a "paper." This is better shown perhaps in his description of the methods for reducing pubic and thyroid dislocations, five of the first of which and ten of the second are given; all of them being based on one theory, and by no means random rules for the accomplishment of the purpose aimed at. It requires a little study to detect a governing principle, but attention shows that it exists in all of them, and that a clear appreciation of it might suggest to the mind of the reader the various expedients so elaborately detailed.

When the Y ligament is entirely ruptured the dislocations which ensue are termed "irregular," because the head of the bone is no longer controlled in a uniform manner. "It has been shown," says Dr. Bigelow, "that the position of the great majority of dislocations is determined by this ligament; and until it is likewise shown, that, when it is broken, the luxated limb will be compelled, in obedience to other mechanical influences, muscular or capsular, to assume positions equally constant, it is fair to consider such luxations as irregular. When any mechanism shall be shown always to give to a luxated limb, after the Y ligament has been torn asunder, the same position under the same circumstances, the luxation may be withdrawn from the present category, and classed as regular." (pp. 102, 103.) The reduction of these luxations, no longer possible by a manipulation depending upon this ligament, must be effected by direct traction, the obstacle to which has ceased to exist, and by local guidance of the displaced head of the bone into the acetabulum.

A discussion of the reduction of "old dislocations," "dislocations from hip disease,"

complete and occurring spontaneously (Dr. Bigelow having first in the U. S. [Feb. 21, 1852] in a case of the latter variety, excised the head of the femur), "dislocation with fracture of the shaft of the femur," and "spontaneous luxation," of which three cases not before published are reported, and "angularextension," complete the principal part of the book under review. The last-named title has reference to a powerful and ingenious apparatus by which extension by pulleys and powerful rotation by levers may be applied to a limb in the flexed position. Dr. Bigelow says, "Although the need of this apparatus may be rare, it will prove occasionally efficient in reducing a luxation of long standing or complicated with fracture. At any rate I cannot believe that the period is remote when longitudinal extension by pulleys to reduce a hip luxation will be utterly repudiated." (p. 117.) It might certainly have advantageously supplanted "Jarvis's Adjuster" in the case of old luxation treated by M. Broca, followed by fatal peritonitis, which last year gave rise to an important discussion in the *Société de Chirurgie*.

We have scarcely left ourselves any space in which to notice the second part of this volume, which treats particularly of fractures of the neck of the thigh bone. Dr. Bigelow's original observations in regard to impacted fracture of the cervix, its mechanism and the anatomical structure of the neck of the femur, are as novel and quite as interesting as those on dislocations. The eversion and shortening of a regular impacted fracture are due to the fact that "the posterior and thin wall [of the cervix] is alone impacted, while the thick anterior wall, refusing to be driven in, yields only as a hinge, upon which the shaft rotates to allow the posterior impaction." (p. 121.) And this arrangement is explained by the disposition of the bony tissues and the continuance of the true neck of the femur beneath the posterior inter-trochanteric ridge. We can hardly believe that an anatomical point so obvious as this, has hitherto escaped notice, and that it was left to the present paper to first demonstrate both its existence and its application.

The occurrence of bony union within the capsule from the impaction of the neck of the femur into the head of the bone, of which two fine illustrations are given, the irrelevancy of the distinction of fractures of the cervix into intra- and extra capsular varieties, and the occasional anomaly of a fractured cervix with inversion of the foot,

are here noticed, the fact of their occurrence is confirmed, and their mechanism is explained, at least under some of the circumstances in which they occur, by cases of emphatic and unusual interest.

The subject of fracture of the hip is concluded by a unique case of "crack in the neck of the femur," detaching the head "except at a narrow isthmus in front." (p. 136.)

A chapter on "fractured pelvis," includes cases of "fracture of the rim of the acetabulum," "fractures in which the head of the bone is driven through the acetabulum," and of "asserted fractures of the acetabulum without crepitus, from a supposed impossibility of keeping the bone in place." Under the first named heading an important confirmatory case is narrated in which a fracture of the acetabulum detached the upper insertion of the Y ligament. It may also be observed that a new and important method is here suggested (more particularly described at p. 109), of keeping in place dislocations heretofore supposed irreducible, or rather impossible to keep reduced. This consists, briefly, in maintaining the femur in the position of the final manœuvre which reduced it.

The analytical notice with which we have furnished our readers hardly conveys a just idea of this remarkable book, for its concise style leaves but little opportunity for further abbreviation.

No higher praise can be awarded to Dr. Bigelow's treatise than to regard it as a successful attempt to bring under one system of explanation all the irregular and exceptional or anomalous cases of dislocation of the hip scattered through medical literature. Nothing can be more satisfactory or conclusive than the manner in which these are deciphered and cleared from their obscurity by the simple intervention of the Y ligament. It may safely be claimed that until the appearance of this volume there was not to be found in the entire range of surgical writings any generalization of these facts; and it may therefore be said, without exaggeration, that this monograph is the most original, important and exhaustive contribution to civil Surgery which has been produced on this side of the Atlantic.

We should do an injustice if we did not invite attention to the mechanical execution of this volume, and especially to the woodcuts, fifty-two in number, with which it is illustrated, and which, with the exception of five, have been drawn from recent photographs, and are now presented for the first time. So large a number of original figures

is rare in American publications, and their excellence betrays the artist in the author as well as the engraver.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, AUGUST 26. 1869.

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### THE PART PERFORMED BY NATURE AND TIME IN THE CURE OF DISEASES.

(Concluded from page 45.)

IN these dissertations the ground proposed to be occupied has been admirably well-covered; and on the affirmative side, of the question of the "part performed by nature and time in the cure of diseases." We by no means intend to oppose their main positions, but offer some further comments from our humble point of view.

Diversity in therapeutics is made much use of as an argument to show the nugatory effect of the remedies in vogue. Thus in yellow fever and cholera a variety of modes of treatment, some of them quite opposed to each other, have had their earnest advocates. As the proportion of deaths in both these diseases continues large, whatever treatment be employed, it is fairly argued that no remedial measures yet discovered can have much effect in staying the progress of either malady. But, it is the fashion to cite rheumatism as another test disease, which in the same way evinces the inefficacy of remedies. And, when we read Dr. Hibberd's quotation from Stillé, recording forty different drugs recommended for that disease, and run the eye over the list of numerous outward applications mentioned as specifics for it, it would seem, at first sight, that the case is fully made out; and that it places us in a position to admit the wit of the London surgeon, who on being asked what would cure rheumatism, replied "six weeks." Unfortunately, however (or rather fortunately), as this statement is apt to be understood—i. e., that rheumatism must necessarily run six weeks—it is not accurate. We see the disease get well in a fortnight, or a few days. This fact, coupled with the misunderstanding alluded to, we



suspect has had something to do with the gratulations of practitioners over the assumption that they have cured rheumatism by their favorite modes of treatment. The truth is there are two sides to this question, and we think that the malady is not happily chosen, as a test in the general discussion. Ask some of our best pathologists what rheumatism is, and they will answer they do not know. They can tell you something about the nature of Bright's disease, when it is under way, at all events; that the patient is poisoned by urea in the blood, and that the disorder has its seat in the kidneys. But, though there have been theories that rheumatism consists essentially in the abnormal development of a certain acid, this, we believe, has not been proved to be always the fact. And, there are those who assume that it is a Protean malady, appearing under different phases in different individuals. It has also been contended that a certain diversity of therapeutics is legitimate and logical in the affection; that a remedy which does not suit one patient may and does help another. This, as an assertion, has as good a right to stand until disproved, as the opposite one that no medication is of any avail in the disorder.

We rather think it will be generally admitted that one of the phenomena of rheumatism—pain—is abated by different applications in different cases. Thus, one person is relieved of it by cold wet packing, partial or entire. Another is made worse by this, but has his sufferings mitigated by applications of warm or hot water. Then again, the sudden cessation of the disease occasionally upon the employment of certain active remedies brings the *post hoc ergo propter hoc* argument down with such force that some mental constitutions can hardly resist it. For instance, we remember a young, vigorous working man of sanguine temperament, who had been fully in the gripe of general acute rheumatism for some days. In the space of about two days we brought him so completely under the influence of colchicum that he was seized with violent emesis and catharsis, under the influence of which he fainted away, and was thought by his attendants to be dying. At the end of twelve hours, the *dolor, ru-*

*bor, calor, and tumor* were gone; and all that remained of illness was a rapid convalescence. We should not care to repeat this experiment; but we do believe that the colchicum here carried off the disease, while it fortunately did not carry off the patient also. We once had similar good fortune with another remedial measure. The patient was a female, young and strong. "Dorsal decubitus" for some two or three days, with general acute rheumatism. Vapor bath prescribed in the evening. The next morning none of the disease left. Speedy return to activity. Yet when we went full of zeal to our next patient similarly affected, to try the same therapeutic expedient, we met with that disappointment which so often awaits the young and ardent practitioner.

If something definite be not learned about the treatment of the disease in question, it will not be because there are not a large number of acute observers working hard at the subject. But, meanwhile, we return to our original proposition that rheumatism does not make a good test case in the discussion of therapeutic efficacy.

The nature of disease is largely discussed in the dissertations before us. And the fashionable dogma—disease is not a separate entity—is ably maintained in them. As the bad passions are argued to be only perversions of healthy sentiments, so pathological conditions are declared to be only perversions of physiological action. Says Dr. Ellis—in an address to the Medical School of Harvard University—"Sensation must be accepted as an inexplicable phenomenon. Will any one undertake to prove that pain is something entirely distinct from it? They are as intimately allied as motion, heat and light." Dr. Hilder says pathological activity is but a diminution, an excess or a distortion of physiological activity. The old-time notion, we would add, that disease is, as it were, a toxic element introduced into the system, which nature and art are called upon to eliminate, as a foreign body is thrown off—that idea is repudiated. The theory of to-day fully carried out would seem to be embodied in the statement—*disease is perverted function.*

Nosology has been of vast service in

grouping together certain sets of morbid phenomena, and distinguishing them from others, for purposes of diagnosis, and—we say it under our breath—for treatment. But such classification has had the disadvantage of blinding us to the facts that various diseases shade off from each other by insensible gradations, and diverge in the same way from health. We welcome, therefore, the current explanation of the nature of disease, as decomposing some prevalent fallacies, and setting free our ideas to take a broader range than before. We must beware, however, lest in crystallizing, the latter engage something of error in their substance. The statement—disease is perverted function—covers an exceedingly large share of pathological phenomena—as such; that is, as morbid action manifested to our observation. What we know of inflammation, of fevers, of the exanthemata and so on, over a long catalogue, comes very well under this denomination. Dr. Ellis has well shown, too, that structural diseases, such as outgrowths, consisting, as they do, of the ordinary materials of the body—but in a wrong place—are to be regarded as the result of perverted function. But, is the above mentioned formula an exhaustive statement of what is meant by disease? Was there not this underlying truth to the old fallacy of regarding disease as an entity, that the idea of it is not restricted to its objective or subjective manifestations, but comprehends the primary pathological fault, which causes the functions to be performed pathologically instead of physiologically? As has been finely shown by Dr. Hibberd, the physiological functions are set in operation by healthy stimuli, and pathological functions by morbid stimuli. The morbid stimulus was, we think, included in the idea formerly held of the subject, and hence the habit of regarding disease as an entity.

It so happens that the morbid stimulus is very often hidden from us; and, therefore, it is well that in defining disease, this fact should be put in relief, and that in classifying the various forms of it we should keep in view that we are merely arranging in our minds certain manifestations of it—or, in other words, what we know of pathological function. An artificial system

serves a good purpose until we can get at the central facts of the economy of nature.

There was, and is, a certain cutaneous eruption, affecting by election certain parts of the body, as the flexures of the fingers. It is first vesicular, then pustular; is attended with surrounding inflammation and intense itching; is contagious and chronic. Knowing it so far, it is perverted function, and we call it scabies. But, we discover that all these morbid phenomena are produced by the burrowing of a parasitic insect—the *acarus scabiei*—and we have got hold of a real entity. That entity we destroy by the drug sulphur, and we have cured a disease.

Let  $x$  represent the morbid stimulus; and our definition of disease would be  $x +$  perverted function. Now for one disease we have a term which includes both factors—the morbid manifestations and the entity which causes them. That disease is trichinosis. We are not without hope that in course of time a new nomenclature will be found appropriate for many diseases—now known only clinically by their symptoms, and treated empirically—for the reason that their morbid stimuli, their essential pathological fault, will have been discovered.

The existence of the *vis medicatrix nature* is now justly repudiated by thinkers and writers, in so far as that term has been interpreted to mean a separate element lying latent in the system, and waiting for disease to call it into activity.\* But, as Dr. Spare says in his dissertation, discard *medicatrix* as pleonastic, and translate *vis nature*, the *tendency of nature*, and we have a statement which recommends itself to the acceptance of all. Thus, as is the case with most maxims of long and wide prevalence, there is truth wrapped up in this much misapplied formula, just as there seems to be in or behind the notion that disease is an entity. Thought in its march often seems to travel round in the direction of its starting point; but it does not really proceed in a circle. It follows an ascending spiral, traversing continually higher and higher planes, and widening as it mounts.

\* This is well put in "Disease a Part of the Plan of Creation." Mass. Med. Soc. Com., 1865.

## DISLOCATION AND FRACTURE OF THE HIP.

It is with much pride that we issue this number of the *JOURNAL*, containing a bibliographical notice of the work of Dr. Henry J. Bigelow on Dislocation and Fracture of the Hip.

The fertile originality of Dr. Bigelow has struck out various new paths, and has now, as we believe, opened up an epoch in surgery. His philosophy of dislocation of the hip-joint will assuredly remodel the whole treatment of that formidable lesion to the immense benefit of humanity. The rude pulley mechanism of Sir Astley Cooper—so long dominant—will now give place to gentle and sure manipulations, generalized into a system applicable to all luxations of the head of the femur.

That an entirely erroneous impression still prevails as to the influences which control the dislocated bone in luxation of the hip, and also in regard to the mechanism of reduction by the flexion method, happens to be strikingly exhibited in Mr. Nunneley's learned "Address on Surgery," read before the British Medical Association at Leeds on the 30th of last month. The vague obscurity and misconception which is revealed in the following extract needs the daylight of Dr. Bigelow's conclusive demonstrations. Mr. Nunneley says:—

"The successful performance of reduction by manipulation mainly depends upon two things.

I. Our anatomical knowledge, enabling us to place the bones and muscles in the most advantageous position; and

II. On bringing the muscles into a proper condition, in which they shall have neither too much nor too little power of action, for either state will prevent success. If this action be too great, then resistance cannot be overcome; on the other hand, if it be entirely suspended, the head of the bone will not be drawn into or maintained in its natural cavity. Hence the anæsthetic should only be carried far enough to suspend volition and spasmodic action, leaving some little power of perception and contraction. When in this semi-passive condition, the limb should be firmly seized, put into gentle rotatory motion in such a direction as our knowledge of the attachment of its muscles tells us, when they act, will cause them to draw the head of the bone towards its socket, and then by a sud-

den and more forcible action, they are roused into a quick contraction, by which the bone is partly thrown and partly pulled into its socket."

The sentence has just been formally uttered in a contemporaneous journal, which, while it accords to American surgery the best operative skill, and the largest inventive talent, yet places us behind the Old World as discoverers and organizers. It looks very much as if while that sentence was being penned the work was in press which was to be the corner-stone of a new structure of surgical science in America, competing with European authorities on their own field of special excellence. If we are correct in our surmise, that corner-stone is now laid by Dr. Bigelow in Boston—the birth-place of etherization, the introduction of which he did so much to foster and extend.

## REJOINDER OF DR. BEACH TO THE LETTERS OF DR. REYNOLDS AND DR. TREADWELL.

AFTER a careful review of the assertions and evidence adduced in their support, contained in the reply of Dr. T. to my "comments on a case of uterine displacement," I cannot admit that their apparent relevancy increases the strength of the testimony advanced by Reynolds in support of his theory. Dr. T.'s opinions may be expressed in eight propositions, as follows:—

1. That the case was one of Graves's disease.

2. That the existing uterine lesion was the cause of the main symptoms (bronchocele, prominence of the eyeballs and inordinate action of the heart).

3. That "it can hardly be denied that all of these symptoms in the present case may not have been produced by the uterine lesion."

4. That "it might naturally be expected that all of the symptoms belonging to this disease might be produced by pathological conditions of the uterus acting as a source of irritation to the sympathetic system, and indeed such cases have been observed and recorded."

5. That "Trousseau and other writers consider Graves's disease as belonging among the functional affections of the nervous system, or the neuroses."

6. That "Trousseau gives two cases in which the suppression of the menstrual fluid was intimately connected and seems to have stood in a causative relation to the development of the disease in question."

7. That "the same author relates another case in which suppression of the menses was the exciting cause of this disease."

8. That "the fact that the uterine lesion preceded the development of the symptoms of Graves's disease, and the additional fact that the latter subsided as the uterine troubles were relieved, show that the theory of the uterine lesion standing in the relation of a cause to the main symptoms (bronchocele, prominence of the eyeballs and inordinate action of the heart), is perfectly tenable and correct." In defence of the above he makes the following quotations.

1. "Bearing in mind," says Dr. Gilbert d'Herecourt in his relation of the case, "that all the relapses of Mrs. B. had been preceded by a diminution or a complete suppression of the catamenia, he decided on carrying out the hydropathic treatment in such a way as to bring on congestion of the uterus, and thus produce a healthy revulsion. \* \* \* In 1859, in the month of June, she had another relapse, or rather a fresh paroxysm, preceded by suppression of the menses."

2. Trousseau "dwells" upon "the necessity of reëstablishing menstruation," considering it "an important therapeutic indication."\*

3. "It" (exophthalmic goitre) "coëxists with wasting discharges, or supervenes upon them; such as leucorrhœa, menorrhagia in females, and hæmorrhoids in males."†

4. "The well-known connection which exists between the uterine functions of the female and the development of the thyroid gland observed at puberty, renders this affection worthy of attention, particularly when we find it so closely related by sympathy to those palpitations of the heart which are of so frequent occurrence in hysterical and nervous females."‡

To propositions one and five I agree with Dr. T. *Prop. 6.*—The fact that the uterine lesion *seemed* to stand in a causative relation does not prove that it did, although it might have coëxisted with the other symptoms. Trousseau does report such cases, but in none of them does he state positively and without reservation that it was a cause. *Prop. 7.*—It is not stated by Trousseau, in the description of this case, that the suppression of the menses was a cause. The

next point to be considered is if the remaining propositions are supported by the quotations.

*Quotation 1.*—The case is cited by Trousseau to illustrate the value of hydropathy in the treatment of exophthalmic goitre, and speaks of it in connection with bleeding and digitalis, but not to direct especial attention to a pathological condition of the uterus as being a cause, although they coëxisted.

*Quotation 2.*—He does, but with other therapeutic agents and the following prefix:—"Now is perhaps the best time for dwelling on the therapeutical indications and for analyzing the reasons which make certain measures successful in the treatment of this complaint. I will be brief, and will merely remind you that bleeding and revulsive applications to the extremities are employed against the congestion of the thyroid gland, avert the cause of asphyxia, while digitalis quiets palpitation, diminishes the frequency of the cardiac and arterial pulsations, and the hydropathic treatment offers the twofold advantage of causing a violent revulsion to the skin and of rendering innervation and nutrition more perfect"; and this additional:—"It would be bad medicine to try anyhow and at all times to bring back menstruation."\*

*Quotations 3 and 4.*—These statements do not contradict the conclusion of Trousseau when he classifies amenorrhœa and disturbed menstruation among the *symptoms* of Graves's disease.† In conclusion, I make some additional quotations in the belief that they, with the preceding analysis of Dr. T.'s evidence, are adequate to establish the doubt already expressed, of the theory involved in proposition 8; Trousseau, in speaking of disordered menstruation and digestion, nervous irritability, and emaciation, with some other symptoms, says, "These premonitory symptoms may extend over several months or years, and sooner or later the three prominent symptoms of Graves's disease show themselves, setting all previous doubts at rest as to the nature of the symptoms."‡ In regard to disturbed menstruation being a cause, a case is cited where the patient "was violently moved on finding out that she had been right in suspecting that her husband was unfaithful to her."§ The three prominent symptoms of Graves's disease soon followed, and although he gives a case where fright was the cause, and cites Stokes and

\* Lectures on Clinical Medicine. A. Trousseau. Translation New Sydenham Society, 1858, pp. 567, 589, 589, 590.

† The Science and Practice of Medicine, William Aitken, M.D., 1896, p. 858.

‡ Practice of Medicine, Robert James Graves.

\* Lectures on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc. pp. 589, 590.

† Op. cit. p. 519. ‡ Op. cit. p. 559. § Op. cit. p. 563.

Graves as they "have mentioned fright as a cause of the complaint,"\* he says "Menorrhœa had, perhaps in this case, a large share in the production of the disease, for the patient had not menstruated since her last labor, although she did not nurse her child, and the first morbid phenomena showed themselves eight days after her confinement."† With this fact strongly in favor of the disturbed menstruation being a cause, even he is in doubt, for he says "the paroxysm was perhaps a consequence only of the menorrhagic fever; that is, of the natural effort needed for the reëstablishment of such an important function. Nearly complete aphonia set in after the paroxysm; but was it a mechanical complication, it may be asked; a result of increased congestion of the thyroid gland, or a purely nervous phenomenon dependent on the general neuralgic condition of the patient, of which exophthalmic goitre itself was only a consequence?"‡ In not a single autopsy detailed by Trousseau is a uterine lesion mentioned, and for corroboration reference can be made to a synopsis of three hundred cases presenting uterine symptoms treated at the Western General Dispensary between July, 1846, and March, 1849.§ A great variety of uterine disease, both mild and severe, is here represented, but I could not detect a single case of Graves's disease, either by name or grouping together any series of symptoms. The following well-known authorities on diseases of women do not mention it in their respective works, as ever having, in their experience, been associated with uterine disease: a fact which, considered in connection with Dr. Bennett's synopsis, points strongly against the chances of Graves's disease resulting from the irritation of the sympathetic by pathological conditions of the uterus.

Graily Hewett. *The Diagnosis, Pathology and Treatment of Diseases of Women*. Phil., 1868.

Alfred H. McClintock. *Clinical Memoirs on Diseases of Women*. Dublin, 1863.

James Henry Bennett. *A practical Treatise on Inflammation of the Uterus, its Cervix and Appendages*. London, 1863.

J. Marion Sims. *Clinical Notes on Uterine Surgery*. New York, 1866.

J. Baker Brown. *On Surgical Diseases of Women*. London, 1859.

T. Gaillard Thomas. *A practical Treatise*

on the Diseases of Women. Phil., 1868.

J. Soelberg Wells, in speaking of the affection, says, "The true cause of the disease and the nature of the connection between the affection of the heart, the thyroid gland and the eye are at present unknown."\*\*\* "It is, however, far more probable that the affection is due to an irritation or neurosis of the sympathetic nerve, producing hypertrophy of the adipose tissue of the orbit and dilatation of the pupil." "One fact, which argues rather against the assumption that the disease is due to irritation of the sympathetic, is the condition of the pupil; for the latter was only in some cases dilated."\* To the reply of Dr. Reynolds, I simply offer the argument and evidence contained in the reply to Dr. T.

LYING-IN HOSPITAL, AND CHILDREN'S HOSPITAL, VIENNA.—The official report recently published for the year 1867, gives the following data respecting the General Lying-in Hospital. In the clinic for male students, there were 4216 confinements; in that for midwives, 3564; in the department for paying patients, 383; in all, 8163. The total mortality among the women was 94, or 1.1 per cent. The beneficial result of the new system of ventilation, introduced in 1863, is shown by the fact that during the last 4½ years 13 women died out of every 1000, while during 20 years (1830–1850), the average mortality was 77 in 1000.

The St. Anna Children's Hospital treated, in 1868, a total of 1104 children within its wards, and 8994 out-patients. The mortality was 20.4 per cent. of the former class. It is curious to see the list of diseases—the one of most frequent occurrence being scarlatina, then smallpox, measles, pneumonia, scarlatina. Evidently they are not very exclusive in their choice of patients for admission.

"This hospital," says the *Journal of the Vienna Medical Society*, "is a Charity, in the true sense of the word. It is capitally arranged and governed, and under the skilful care of Prof. Widerhofer it fulfils, in every respect, its aim. It offers to thousands of children an asylum in sickness, whether for reception within the hospital, or for ambulatory treatment. It offers, besides, the means of educating physicians in this branch of diseases, so important from the social and political points of view." No one who has seen the Hospital

\* Lectures on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc. p. 563.

† Op. cit. ‡ Op. cit.

§ A Practical Treatise on Inflammation of the Uterus, its cervix and appendages. By James Henry Bennett, London, 1863.

\* A Treatise on Diseases of the Eye, 1869, pp. 621, 622.

at work, will fail to subscribe most cordially to the above remarks.

D. F. L.

**A NEW HYPNOTIC.**—Chloral, and Trichloroacetic acid, will, under certain conditions, in alkaline solutions, generate chloroform. This fact has been turned to profit by Dr. Oscar Liebreich of Berlin. He has administered an aqueous solution of chloral, hypodermically, first to rabbits, and then to a patient. 0.1 gramme, thus administered to a young rabbit, produced an effect within ten minutes. The animal fell into a deep sleep, during which he could be moved in any way without awaking; the respiration and pulse were somewhat retarded, regularly, and reflex excitability remained. An adult rabbit received 0.3 gram., and went through the same series of phenomena; finally losing reflex excitability, he lay for some hours breathing quietly, then awoke suddenly, and seemed quite well. Subsequent experiments upon a patient in the Charité Hospital seem to show that chloral, administered by the stomach or by subcutaneous injection, is a sure hypnotic, free from danger and followed by no ill results. It acted well even when large doses of opium or morphine failed. It is not yet an article of commerce, but, it is hoped, will soon be manufactured upon a large scale. [*Virchow's Arch.*, 47 B. 1 II.]

D. F. L.

**FISSURES OF SKIN OF ABDOMEN AND THIGHS, IN PREGNANCY.**—Certain fissure-like streaks, of a silvery white color, are often seen upon the abdomen when distended by pregnancy or by the presence of tumors, by excessive obesity, edema, &c. Similar marks, seen upon the front of the thigh, have commonly been considered a symptom of pregnancy; but, as it seems, incorrectly. Prof. Schultze of Jena has examined 222 women, in hospital, who never were pregnant; and finds these thigh-marks upon 80 of them. He has not pursued the inquiry in regard to pregnant women; but he gives the final demonstration that the marks are not "a sign of pregnancy," by showing that they occur upon men as well as women, though much less frequently. His belief is, that they originate, in the case of women, from the lateral distention of the skin which takes place during the rapid development of the hips at puberty.—Quoted in *Allg. Med. C. Ztg.*, No. 53.

D. F. L.

**DIABETES TREATED WITH CARBONATE OF AMMONIA, ADMINISTERED LARGELY.** By F. W. PAVY, M.D., F.R.S.—In a recent number of

the *British Medical Journal*, I referred to a case of diabetes mellitus, that I was treating with carbonate of ammonia, administered to a larger extent than usual; and I promised, a little later, to send for publication on account of the result. This I now propose to do. The history of the case is drawn from the notes furnished to me by my clinical clerk, Mr. W. B. Taylor.

William F., aged 50, No. 2, John Ward, Guy's Hospital, admitted March 24th, 1869, a married man, by occupation an engineer on board a steam-vessel, plying between London and Yarmouth, states that about two years ago he noticed that he was losing flesh rapidly, and becoming very weak, and that at the same time he experienced an unusual amount of thirst and hunger, and passed a large quantity of water. The medical man whom he consulted told him he was suffering from diabetes, and sent him to Guy's Hospital, where he was admitted and remained for six or seven weeks. During this time he much improved, and upon his discharge passed between three and four pints of urine in the twenty-four hours, which was much less than he had formerly voided. He afterwards attended for three months as an out-patient, and still continued improving. Whilst under treatment, and for some time afterwards, he kept to a restricted diet; but about a year ago he resumed an ordinary mode of living, except that he avoided sugar, and only partook of potatoes occasionally. He also resumed his employment, and continued well up to a week before Christmas last. At this time he was shipwrecked at Yarmouth, and narrowly escaped being drowned. Two days afterwards, he noticed a return of his old symptoms; his urine began to increase in quantity, and he became again very thirsty. He resumed his former diet, but his complaint continued unabated, and finding himself daily getting thinner and weaker, he applied for admission into the hospital.

It is interesting to notice that after the complaint had been subdued and kept under for several months, a return of it in a state of severity seems to have been brought about by the shock received from his exposure to shipwreck. It is a fair conclusion, I think, that this was so, and it agrees with what I have noticed in other cases. I have long been of opinion that the complaint is susceptible of being influenced in a marked manner by mental states.

For the first few days after admission into the hospital, the patient was put upon a mixed diet. The quantity of urine ranged from 8 to 10½ pints *per diem*, and the sugar

from 6,000 to 8,000 grains. Without change of diet at first, he was ordered to take 100 grains of carbonate of ammonia during the course of the twenty-four hours. It was dissolved in a pint of water, and administered in small frequently repeated portions. The effect to begin with was to cause an increased quantity of urine to be passed, but the proportion of sugar being rather diminished, the quantity for the twenty-four hours remained about the same; a decided influence was exerted upon the cerebral functions. The patient felt giddy, stumbled, and upon one occasion almost fell in walking; and had dimness of sight, with occasional bright flashes before his eyes. He also experienced a feeling of sickness, but there was no actual retching or vomiting; and notwithstanding the feeling of sickness, he was able to take his food as usual.

On account of these symptoms, it was only for two days that the 100 grains of carbonate of ammonia were continued; on the third day, 90 grains were taken, and the next day it was taken off altogether, and aqua camphoræ given instead. The patient was also now placed upon a restricted diet, which, as is usual, brought down the quantity of urine and sugar in a very notable manner.

In ten days' time the carbonate of ammonia was administered again. During the first day, 75 grains were taken, and then, as before, 100 grains. This time no particular inconvenience was complained of, and the patient was ordered to persevere with its employment. The first day the urine was higher in quantity, and continued afterwards rather higher than it had been, although the sugar remained for awhile about the same. Then, whether from the effect of the restricted diet or carbonate of ammonia, the sugar disappeared altogether, and after it had been absent for about ten days, the carbonate of ammonia was again taken off, and camphor-water given instead. The urine immediately rather fell in quantity, and remained devoid of sugar. After a lapse of nine days, a little ordinary bread—at first two ounces, and then four ounces, *per diem*—was allowed, and still the urine continued for a time free from sugar. Later, however, sugar reappeared, but not to any great extent. Again the carbonate of ammonia was given, and again an increase in the quantity of urine was noticed. For a few days the amount of sugar passed underwent no material change; subsequently, however, it again disappeared.

Looking at the facts of this case, taken

altogether, it would certainly seem that the carbonate of ammonia exerted a controlling influence over the disease. No immediate and decided effect, however, of the kind that is produced by the administration of opium, was traceable.—*British Medical Journal*.

ON LOCOMOTOR ATAXY. By J. LOCKHART CLARKE, M.D., F.R.S., &c.— \* \* \* \*

In a great number of instances, the first symptoms made their appearance in the form of strabismus, with diplopia, which may disappear for a time and then return; or in the form of amblyopia or weakness of sight, which may go on to complete amaurosis. After a variable period, these symptoms are accompanied by so-called "rheumatic" and lancinating pains, which occur at variable intervals in different parts of the limbs. In many cases, the ocular disturbances, except perhaps extreme contraction of one or both pupils, never make their appearance; the pains, which may extend over months or even years, accompanied by some weakness, being the first in the train of symptoms. Either at the same time, or subsequently, there is commonly more or less numbness in the feet and legs, in the hands and arms, and sometimes in the face. Sooner or later, the patient begins to find that he cannot properly maintain his balance; that he totters in walking, like a man partially intoxicated, or that he cannot guide the movements of his fingers. He has lost, to a certain extent, the power of controlling the action of some of his voluntary muscles. Still later, the voluntary movements become more or less jerking or spasmodic; and in the course of the disease other symptoms supervene, as incontinence of urine and dysuria, which frequently alternate in the same patient; loss of control over the sphincter ani; generally, though not always, loss of sexual power and desire; occasional hyperæsthesia over certain parts of the limbs, and sensations of tightness around the body and limbs. In rare cases, of which I have seen two, the senses of smell and taste are impaired. Usually, the patient's general health is not much affected, and his intellect remains unimpaired. Locomotor ataxy is a disease which occurs more frequently about the middle period of life, and is much more common in men than in women. This very concise outline must of course be considered only as a general introduction to the cases which I intend to relate.

*Morbid Anatomy.*—The morbid anatomy of locomotor ataxy consists chiefly of a

certain grey degeneration and disintegration of the posterior columns of the spinal cord, of the posterior roots of the spinal nerves, of the posterior grey substance or cornua, and sometimes of the cerebral nerves. A variable number, and frequently, in the latter stages of the disease, nearly all the nerve-fibres of the posterior columns and posterior roots fall into a state of granular disintegration, and ultimately disappear. Usually, the posterior columns retain their normal size and shape in consequence of hypertrophy of connective tissue, which replaces the lost fibres. In this tissue, at wide but variable intervals, lie imbedded the remaining nerve-fibres, with the *débris* of their neighbors, in different stages of disintegration. In some places they are severed into short portions, or into rows of globular masses, formed out of their medullary sheaths, or white substance, which has been stripped from their axis-cylinders. In other places they have fallen into smaller fragments and granules, which either lie aggregated in the line of the original fibres, or are scattered at irregular distances. Corpora amylacea are usually abundant, and oil-globules of different sizes are frequently interspersed among them, and collected into groups of variable shape and size around bloodvessels of the part. I am inclined to believe, from my own investigations, that, in the course of the disease, the posterior cornua of grey substance are *always* more or less affected, as I have elsewhere pointed out; and it appears to me to be a question whether they are not the first parts, or at least amongst the first parts, that are morbidly changed. I have also shown, and will show you to-day, that in some cases the deeper central parts of the grey substance are more or less injured by areas of disintegration. These latter lesions, however, are not essential to the production of locomotor ataxy, the peculiar symptoms of which depend solely on lesions of the posterior columns, of the posterior nerve-roots, and probably of the posterior cornua. The cases in which they occur may be considered as mixed cases, partaking of the nature of locomotor ataxy and common spinal paralysis, like the second of those which I shall describe.\*—*British Medical Journal*.

MEDICAL SCIENCE IN JAPAN.—An interesting account of the art and science of medi-

cine amongst the Japanese is given in one of the American journals, by Dr. Vedder, an American physician, and now the chief medical adviser to the Prince of Nagato. The Japanese doctors hold very good positions in society. They originally derived their knowledge from the Chinese, but of late years the diffusion among them of Dutch literature has done much to their enlightenment. There are no schools of medicine in Japan, but the son scrapes together as much information as he may be able from his father, or the native practitioner dispenses his empiricism to the two or three pupils that generally reside with him. An attempt is being made to establish a school at Nagasaki, in connection with the hospital there, but it is likely to fail from the fact that Dutch is the only foreign language allowed to be used. Physicians carry a couple of swords, and special respect is paid to their opinion, although they are generally paid for medicine alone; and, as may be imagined, the latter is ample and bulky. Sometimes, however, a special honorarium is given to the doctor at the close of the treatment of a case. Very little is known of anatomy. There are native names for veins, nerves, lymphatics, and the principal anatomical structures, but topographical anatomy is entirely unknown, since dissection is not permitted. The Japanese are quite in the dark with regard to physiology. The liver they imagine to be the seat of courage. The doctor feels the pulse at both wrists at the same time, in the belief that there is a heart on either side of the body. There are a few works on tumors in Japan, the contents of which have been dictated by fancy or the traditional accounts of disease. Foreign medicines, nevertheless, are in use now-a-days; iodide of potassium, Hoffman's anodyne, quinine, henbane, and phosphoric acid amongst others.—*Dublin Medical Express and Circular*.

THE OXALATE OF CERIUM IN THE VOMITING OF PREGNANCY. By J. WARING CURRAN, L.K. and Q.C.P.I., L.R.C.S.I., &c.—The object of the present paper is to bring more prominently forward the valuable therapeutic action of the oxalate of cerium in controlling the distressing nausea of pregnancy. Most practitioners have at one time or another experienced the difficulty of finding a successful remedy for the alleviation of this most disagreeable concomitant of the parturient state when it arises, and a few perhaps at the cost of their professional reputation. Baffled as others have been in

\* All the morbid appearances above described were shown to members of the Association at Oxford, in preparations made by the author from spinal cords, &c., of cases of locomotor ataxy.



getting hold of a successful agent to counteract the vomiting of pregnancy, experimenting with every new remedy likely to prove efficacious, adopting the favorite formula of reputed obstetricians, and exhausting every available and plausible method of treatment without reliable success, I became induced to prescribe the oxalate of cerium, and I can assuredly testify with the best effects and the most satisfactory results. Doubtless there are many remedies which temporarily subdue the incessant nature of the vomiting by neutralizing the acid generated in these cases; but none with the *permanent* and salutary advantages of the drug I advocate.

I administer it in the form of pills, as follows:—

R. Cerii oxal.

Ext. lupuli, āā gr. xxiv.

Div. in pil. xij., cap. i. ter in die.

and at the same time exhibit bromide of potas. in ten-grain doses, with the tincture of yellow cinchona bark and spirits of ammonia. The mixture and pills appear to constitute a most successful plan of treatment.

At my suggestion Dr. Pultney, of Huddersfield, has given extensive trial to the oxalate of cerium; and in a communication just received from that gentleman I learn that he is preparing for publication the successful issue of a number of cases treated by cerium, some of which, previous to its administration, had evinced serious symptoms.—*Ibid.*

**VARICOCELE TREATED BY SOLUBLE ANTISEPTIC LIGATURES.** By E. ANDREWS, M.D., Prof. of Principles and Practice of Surgery, Chicago Medical College.—Prof. Lister, of Glasgow, Scotland, gives an account in a late London *Lancet* of an experiment upon a calf, in which he tied the carotid artery in two places with animal ligatures, soaked in carbolic acid solution. One of the ligatures was a piece of fine catgut, and the other a string made by twisting up strips of calf's peritonæum. The ligatures were cut off close and left in the wound. The whole wound was then well washed with solution of carbolic acid, closed with sutures, and sealed up, air-tight, with a carbolic acid dressing, covered with tin foil, and healed by first intention. The Editor of the *Lancet*, in commenting on this experiment, makes the remarkable, but erroneous statement, that the dead animal ligatures employed acquired bloodvessels, &c., and actually became living organized tissues. This, however, is a laughable misconception.

Professor Lister states simply this: At the end of a month the calf was killed, and the parts carefully dissected. The incision had healed without suppuration, nor was there a particle of pus at the places of the ligatures. The artery was found perfectly closed, though the proximal ligature was close to a large branch. At first glance, it *seemed* as though the ligatures had become organized, because their places were occupied by bands of living, fibrous tissue, running round the vessel, and giving it great strength and security, notwithstanding the proximity of the large arterial branch. Close examination, however, showed that the bands consisted of new tissue, simply occupying the places of the ligatures which had become gradually absorbed. On the posterior side of the artery, a small piece of each ligature remained, whose absorption had not yet been completed. \* \* \*

—*Chicago Medical Examiner.*

Dr. Andrews, in imitation of Dr. Lister, made ligatures of tendon from the fore-leg of an ox, and tied a varicocele with them. The operation was successful. The ligatures produced no trouble, and were supposed to be undergoing absorption.

**THE PULSE OF PARTURIENT WOMEN.**—Of 400 women observed in the Hospital Cochin, by M. Hemy, 64 presented slowness of the pulse in different degrees, while an alteration in its rhythm was noticed in 94. Slowness of the pulse in parturient women ceases when the milk-fever begins, whereas its irregularity and inequality continue in most cases until the tenth day. This slowness of the pulse is attributed by MM. Marcy and Blot to an increase of the arterial tension, caused by the sudden suppression of the uterine circulation. M. H. thinks it is due to the shock produced upon the system by the parturient act and the consequent nervous depression, the intensity of which varies in different cases, as does the intensity of the milk-fever which caused it to cease. The influence of moral emotions in causing an increase in the frequency of the pulse is another argument in favor of this vital and organic explanation, rather than of the entirely mechanical one.—*American Journal of Obstetrics.*

**A CASE OF CHRONIC HYDROCEPHALUS.**—There is a child in Dayton, Ohio, aged 17 mos., afflicted with chronic hydrocephalus, whose head measures 27 inches in the occipito-frontal circumference, and 19 inches from one meatus of the ear to the other, over the top of the head.—*Med. Record.*

## Medical Miscellany.

**THE ESSEX NORTH DISTRICT MEDICAL SOCIETY.**—Our citizens were startled, a short time since, at seeing a battalion of doctors marching down State Street, led by the venerable Dr. Root, of Byfield, who, like Saul of old, stood head and shoulders above his fellows. It soon came out that it was the quarterly meeting of the Essex North District Medical Society, the members of which, having cured, or otherwise disposed of their patients, concluded to attend to the recruiting of their own health, by an excursion in the bay, as guests of the Newburyport members—Drs. Perkins, Cross, Howe and Snow.

At a little past ten o'clock they went on board the good schooner Comet, Capt. Felch, accompanied by a few legal gentlemen, members of the press, &c., who were invited, as they at first imagined, to give dignity to the affair, though they afterwards concluded, from the way they were stuffed with all the good things of this life, including some that the profession usually interdict—as cucumbers, iced lemonade and ice-cream—that there was a conspiracy on the part of the doctors, business being dull, to get up a few cases of cholera morbus, just to keep their hands in.

A fine collation of cold meats and all the incidentals was in order at an early hour, of which while the party is partaking, we will say a word about the Society. It is a branch of the Massachusetts Medical Society, which has one or more branches in every county. It was organized in 1841, Jonathan G. Johnson, President, and Frank V. Noyes, Secretary, the first annual meeting being held in the Merrimack Academy, Groveland. There are at present fifty-five members, the oldest of whom is Dr. Richard S. Spofford, of this city, Dr. Jeremiah Spofford, of Groveland, being the next, and both, we believe, being rising 80. The following are the officers for the current year:—W. D. Lamb, Lawrence, *President*. Seneca Sargent, Lawrence, *Vice President*. Martin Root, Newbury, *Secretary and Treasurer*—he having held the former office since 1843, and latter since 1853. O. S. Lovejoy, Haverhill, *Librarian*. S. K. Towle, *Corresponding Secretary*. D. Dana, Lawrence, J. C. Howe, Haverhill, G. W. Snow, Newburyport, W. H. Kimball, Andover, and J. P. Whittemore, Haverhill, *Censors*. J. R. Nichols, Haverhill, S. Tracy, Andover, E. Cross, Newburyport, H. C. Perkins, Newburyport, and O. Warren, West Newbury, *Councillors*. Jeremiah Spofford, Groveland, *Commissioner on Trials*.

After dinner, symptoms of the inevitable speech making began to manifest themselves, which, though they were kept down for a while by a mild treatment of more music, solemn jokes, political gossip, lemonade and cigars, it finally broke out and run its course, assuming, in fact, a chronic type, which lasted till we reached the wharf. "Parting drinks" were taken after we got inside the bar, in the shape of a third set down to lemonade, ice cream and cake, the excellent quality of which was in keeping with the entire bill of fare.

To sum up, a better company and a better time—where genial hilarity proved itself compatible with perfect sobriety, and everything went off as smoothly as the Merrimack flows in its channel—it never was our pleasure to participate in. The greatest credit is due to the Newburyport members of the Society for the handsome and generous style in which they entertained the company, which included a good proportion of the Society, several medical gentlemen from abroad and invited guests from this city.—*Newburyport Daily Herald*.

**DR. MCQUILLEN'S PAPER.**—The paper by Dr. McQuillen, Editor of the *Dental Cosmos*, on the Effect of Anæsthetics on the Blood-corpuscles, a large portion of which we copied into this JOURNAL some time since, has been translated into German and published in the *Deutsche Klinik* for July 17, 1869.

**BUSTS OF TROUSSEAU.**—Two busts of Trousseau have just been finished—one for the Hall of the Faculty of Medicine, the other for the peristyle of Hôtel Dieu.

**DEATH OF PROF. PURKINJE.**—On the 28th of July last, Prof. Purkinje deceased at the age of 82 years. His works on Vibratile Movement and on the Development of the Ovum are well known to all scientific men.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic. TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary. WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS. THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture. FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary. SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—Communications accepted:—*One Glom-worm from Illinois.*—Case of Strangulated Hernia—Surgical Cases at the City Hospital—Veratrum Viride and Veratria—Watermelon vs. Diarrhoea.

**MARRIED.**—At Georgetown, D. C., 17th inst., Dr. Geo. A. Ours, Bvt. Lt.-Col. and Asst. Surg. U.S.A., to Genevieve Poe, of Georgetown.

**DEATHS IN BOSTON** for the week ending August 21, 117. Males, 55—Females, 62.—Abscess, 1—accident, 6—apoplexy, 2—disease of the bowels, 2—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 26—cholera morbus, 3—consumption, 21—croup, 1—cyanosis, 1—debility, 2—diarrhoea, 8—diphtheria, 2—dropsy, 2—dropsy of the brain, 3—dysentery, 5—typhoid fever, 3—disease of the heart, 1—hernia, 1—infantile disease, 1—intemperance, 1—disease of the kidneys, 1—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—old age, 1—paralysis, 1—peritonitis, 1—puerperal disease, 1—disease of the spine, 1—syphilis, 1—unknown, 4—whooping cough, 1.

Under 5 years of age, 52—between 5 and 20 years, 12—between 20 and 40 years, 27—between 40 and 60 years, 14—above 60 years, 12. Born in the United States, 88—Ireland, 22—other places, 7.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

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## Original Communications.

### WATERMELON *vs.* DIARRHŒA.

By CHARLES E. BUCKINGHAM, M.D., Boston.

THE article in the JOURNAL of August 19 is of value, and it is to be hoped that other gentlemen will follow Dr. Webber's suggestion. I should like to incorporate my experience with his and theirs.

Mine shows first, that many of the so-called diarrhœa medicines aggravate the disease, and make of the diarrhœa a dysentery. The mixtures of opium, camphor, capsicum and rhubarb will often do this, more especially if the intestines be not first cleared out. Even if they be, dysentery not infrequently follows the use of these mixtures.

Secondly, the diarrhœa often becomes a choleraic disease, attended with excessive vomiting and with cramp, even if finally checked.

Thirdly, and this is no new observation, the neutral salts in small doses, such as sulphate of magnesia, sulphate of soda, and the tartrate of potash and soda, after clearing out the canal, will be followed by comparative freedom from discharges. This is the case in a marked degree in dysentery, and oftentimes is followed by recovery without the use of opium.

Fourthly, in combination with small doses of morphia, or without, according as there has or has not been pain, I have found no medicine control dysentery with so much satisfaction as bitartrate of potash. Mixed with some essential oil, sugar and water, it is a most grateful drink, and comes the nearest to—

Fifthly, peaches. Our prejudices and tastes probably affect our prescriptions. Perfectly ripe peaches, in no degree decayed, make the best dose for ordinary diarrhœa and dysentery; sometimes with, sometimes without morphia, according to the presence or absence of pain. I prescribed a quart for a patient to-day.

Why not watermelon? Why not pears? There is a prejudice in our community

against both. Is not the reason this, that the former is often eaten unripe, the latter over ripe and even rotten?

Sixthly, there are other fruits of which we swallow the seeds, such as grapes, blackberries, whortleberries, blueberries and raspberries, all of which some of us have found useful in diarrhœa. We swallow the seeds of all of these, and the question might well be raised, whether the tannin in the seeds may not have a part in the play. With the grape, it sometimes seems as though the seed and the skin, if swallowed, might be the cause of mischief. I have notes of an apparently marked case of this effect of the seeds, in which they were retained in the intestine for weeks.

I have now under observation a patient, who for months had diarrhœa, but who has had only one dejection daily, since blueberries came into the market this season. That one has been obtained by a daily dose of Seidlitz powder for three weeks past.

"Watermelon *vs.* diarrhœa" opens up a number of questions well worth examining, and if some of the gentlemen who are to write dissertations for their degrees, would spend a part of their time in investigating them, they might do themselves a credit, and the world a favor.

Many medical men prescribe what is according to rule, and solely because some one has given the rule. Chalk mixture, for instance, is said to be useful in diarrhœa. How many men question the cause of the diarrhœa, when they are about to prescribe chalk mixture? Why do they prescribe it? One gentleman answers, "because it is lime, and lime is an antacid." Very well, if there be what is called acidity of the stomach, his prescription is perhaps correct. Another answers—"because lime is an astringent, and an astringent is needed to constipate." But I find that he seldom prescribes chalk mixture without the addition of another astringent, like catechu or kino; and, as if to upset his own theory, he advises his patient going west to beware of drinking water in certain localities, because it contains lime and will surely give him diarrhœa.

I hope Dr. Webber will go on with "Watermelon vs. Diarrhœa." Some one will read his article and experiment.

# A REMARKABLE CASE OF STRANGULATED OBLIQUE INGUINAL HERNIA SIMULATING HYDROCELE OF THE CORD.

By W. H. TRIPLETT, M.D., of Woodstock, Va.

JULY 6, 1869, was called to J. J., colored, at 6, A.M. Was vomiting, and complained of some abdominal pains; said he had suffered through the whole night; had not indulged in any dissipation the day before; had eaten a light supper and had retired about 11, P.M., feeling very badly in his bowels; "he was ruptured on the right side, and this morning he could not get it all back." The vomited matter was stercoraceous, and I at once made inquiry if he was ruptured, and elicited the above facts. Upon examination, I found an oblique inguinal hernia, in the shape of a soft tumor, lying under the edge and extending below the external abdominal ring, about as large as a hen's egg, which I readily returned to the abdominal cavity, and the index finger impinging against the external ring, it felt patulous and empty, so that I believed the hernia had been entirely reduced; yet upon further examination, I discovered a scrotal tumor larger and harder than a healthy testis, together with the testis of that side, but lying above the latter organ, and having no direct connection with it; it was as large as an ordinary lemon.

It was exceedingly hard, and situate about  $1\frac{1}{2}$  inches from the external ring; several fingers could be introduced between it and the ring, and the spermatic cord to all appearances seemed the only connecting medium between it and the abdominal viscera. The cord was distinctly felt, and did not appear to be much augmented in bulk; it seemed to spring from the cord.

It was sensitive to gentle manipulation. When pushed upward against the abdominal ring, it would, if not prevented, at once return to its former position, maintaining its distance and preserving its isolated condition and obscure character.

Was it a hernia? an encysted hydrocele? or a fibrous tumor?

The patient said "the lump had come during the night." This statement was incompatible with the last two suppositions, and taken in connection with the gastric disturbance and intestinal pains, would seem to make the former stand to the lat-

ter, as cause and effect; if this be the case, then it must be a hernia. If the latter, the issue was of so grave a character that no time could be lost on anodynes and opiates, but recourse must be had at once to chloroform and the taxis.

These were made use of, but it was found impossible to displace the scrotal tumor, or throw any new light upon its nature.

A careful dissection was now made by means of the scalpel and grooved director down upon the contents of the tumor. Several ligatures had to be used on account of free hemorrhage from two rather large arteries for this region; finally, the inner or true tunic was reached, but it was so very tight from distention, that it was impossible to seize it with the nibs of the forceps, and a small puncture was made in it, through which issued a jet of serum. The grooved director was now introduced, and the capsule, or sac, as the case might be, freely opened up. A knuckle of intestine of about two (2) inches in length, including the calibre of the vessel, was discovered in the cavity, darkly discolored and ecchymosed. Careful taxis directly applied to the gut could not reduce it. It was closely embraced by the stricture, which was composed of thickened and corrugated folds of the hernial sac, imprisoned by a ring of almost cartilaginous hardness. After its division, the bowel was manipulated through the narrow strait, and, gliding over the external abdominal ring, readily dropped back into the abdominal cavity. Introducing the index finger and hooking up the site of the stricture, it felt between the thumb and finger to be of uniform thickness, and to extend all round the sac, which was universally adherent. He had been ruptured for ten years.

The parts were now united by several points of interrupted suture, and a compress saturated in a solution of carbolic acid in boiled linseed oil, in proportion of one part of the former to ten of the latter, was applied over the wound.

When he recovered from the anæsthesia, all the gastric distress and the anguish of strictured bowel were gone, and he expressed himself as feeling more comfortable than he had ever expected to be again.

Two grains of opium were now ordered to be given every two hours until sound sleep should be induced, to ward off inflammation and to act as a splint to the bruised bowel.

Aug. 7th.—Rested well, and has no pain this morning or abdominal tenderness.

8th.—Is pretty much in the same condi-

tion as yesterday; has no pain and is doing well.

9th.—Passed a large stool of clotted blood and fecal matter, decomposed and of foul odor, last night. Had several stools of the same character through the day.

10th.—Is bright and cheerful this morning; says he passed more blood during the night.

From this time on he rapidly improved, and now the patient is sitting up, fully convalescent.

August 17, 1869.

## TREATMENT OF SYPHILIS BY SUBCUTANEOUS INJECTIONS.

(Concluded from page 51.)

It only now remains for us to give the results of this treatment in the General Hospital at Vienna, to complete our review of all that has thus far been published in Germany upon this subject.

Dr. G. Lewin, of Berlin, having published 500 cases of syphilis cured by hypodermic injections of corrosive sublimate, the directors of the syph. department of the General Hospital in Vienna considered it their duty to test the value of this method. Dr. J. Grünfeld was entrusted with the execution of their desire, and endeavored, in justice to Dr. Lewin, to follow precisely his *modus operandi*. He chose well-marked cases of constitutional infection characterized by an exanthema, and made use of the same solution, viz., 4 gr. of sublimate to 1 ounce of distilled water, and in accordance with the various conditions of the patients, employed for each inj. 8 to 24 drops, i. e.,  $\frac{1}{15}$  to  $\frac{1}{5}$  grain of sublimate.

He reports\* the invariable presence of a more or less severe sensation of burning during and immediately after the injection, varying with the individual sensibility, the nature of the skin, the place chosen for injection, the size of point of instrument, the amount and concentration of the solution and the dexterity of the operator. This sensation is soon lost, and may or may not be followed by smarting which generally, though not always, is in proportion to the extent of local reaction. In two cases only out of twenty-five thus far treated was this smarting severe and not to be relieved by treatment.

The objective symptoms were various.

Generally, immediately after the injection, a circumferential hyperemia showed itself, followed by central induration, but no other sign of inflammation. The hyperemia vanished in 3-4 hours; the induration lasted, however, for an indefinite period. In several cases there appeared within ten minutes, together with the induration in the centre of the hyperæmic spot, one or more pale vesicles. This occurred chiefly when the injection was too superficial or the syringe was emptied too rapidly. The vesicles, however, shrank and disappeared within six hours, leaving a small brown spot with a yellowish margin. These also disappeared in a few days, leaving only the induration. When the vesicle did not entirely shrink up, one could see in a few hours a diffused brownish-red spot about half an inch in diameter, deeper colored towards the centre, which, composed of the half-shrunken vesicle, was about the size of a lentil, dirty white, lying in folds and easily to be moved upon or torn from the tissues beneath. This condition lasted several days, and then the centre dried and was thrown off. After large doses,  $\frac{3}{4}$  gr., especially on an ill-adapted location, there remained after involution of the vesicle a dirty spot, easily to be pushed from its place, about the size of a nickel cent and surrounded by marked symptoms of inflammation. Here the subjective appearances were also more strongly marked. The spot dried up in two or three days, and the pain ceased. The brownish-red color, nevertheless, often remained for six weeks or more. After 600 injections, Dr. Grünfeld has seen, as yet, no case of formation of abscess. Lewin states that though these occurred during the earlier period of his treatments by injection, yet amongst his last 100 patients thus treated he has met with but two or three cases of abscess, and these of but slight importance.

The local effects of the injection are due to the corrosive action of the sublimate. This drug when swallowed unites with the albumen of the contents of the stomach, or if it finds therein too little, with its walls, forming albuminate of sublimate and producing a scab. So in subcutaneous injection. The sublimate unites with the albumen of the intercellular fluids and tissues. The albuminate of sublimate consists [Muller] of oxide of mercury and albumen, and is the cause of the induration if the injection is deep, or of the mummifying of the skin if the injection is superficial. The brown, brownish-red or black scab is gradually thrown off without laying bare the corium,

\* Bericht ueber hypodermatische Sublimat-injektionen gegen konstitutionelle Syphilis, von Dr. J. Grünfeld, Sekundärarzt der Klinik für Syphilis des Prof. v. Sigmund in Wien.

and after some weeks a mere stain remains. This applies only, however, to injections of a solution not too concentrated. In 1867 four persons were by accident injected with a solution of sublimate kept for external application, the strength being 3j. of the sublimate to 3j. spir. vini. rectif. Of this 11 gr. was injected, i. e.,  $1\frac{1}{2}$  gr. of sublimate. The result was in each case a dark strongly-adhering scab,  $\frac{1}{2}$  to  $\frac{1}{2}$  inch in diameter, surrounded by a deep-red discoloration. This loosened itself partially after some days, and removal of it showed the tissues beneath necrosed, in the form of dirty-white shreds, the border of the wound elevated, and appearances of violent inflammation growing less towards the periphery. The sores were a long time in healing, the formation of pus very moderate.

The universal constitutional effect of the sublimate is independent of the place of injection; the best situations, however, are those where the appearances of reaction are the least, viz., the sides of the breast-region, the hypochondriums, the back towards the sides, and the nates as high as the crista ili. Avoid the neighborhood of lymph glands, the flexor side of the extremities and the legs below the knees, as, especially in the last case, pain and difficulty in movement, even in bed, are the results. Those syphilitic efflorescences which are in the immediate neighborhood of the place of injection are the first to disappear. [Hebra.]

A subsequent injection must never be made within two inches of a previous one, as the skin, even if no longer painful, has acquired a closer connection with the tissues beneath, rendering it impossible to make a proper fold for the insertion of the canula. The actual mechanical and chemical change has deprived the part of vitality for absorbing a second injection, and rendered it more liable to necrotic destruction. Such a second injection was made *experimenti gratia*, and  $\frac{1}{15}$  gr. sublimate injected at the periphery of an induration still remaining from an injection made twelve days before. Result intense hyperæmia, mummifying of the skin in a circle of  $\frac{3}{4}$  of an inch in diameter, an induration as large as a pigeon's egg, and great pain lasting over four weeks.

The adaptation of the skin for injection depends on its thickness, on its closeness of connection with the subcutaneous tissues, on the amount of fat in the subcutaneous cell tissue, and finally on the age of the patient. The local and general effects are the least when the injection is performed where the skin is most movable and folds

are easiest made. If the skin is thin and the panniculus adiposus moderate in amount, we see often no local effects even after many injections. So with old persons, where the skin is dry, hard, poor in fat and easily to be moved; such patients, if the choice is given them, after a trial of both methods always prefer a treatment by injection to one by innunction.

The best syringe for the purpose is made of hard India rubber, as this is least readily attacked by the corrosive drug. The measurement of its contents should be made in grains rather than in drops. The exact dose administered should always be known. The bore of the syringe should be everywhere the same, and the piston exactly fill it. The canula should have a point like a pen, for if lance-shaped the pain of extraction is greater than that of insertion. This point must be as small and the canula as smooth as possible. Careful cleansing of the canula and occasional sharpening of its point are necessary to preserve them from the action of the sublimate. With care one canula will suffice for one hundred injections. As a rule, one injection per diem is sufficient, though the administration of two seems sometimes to hasten the cure. A fold of the skin is to be raised between the thumb and forefinger of the left hand; the canula should be inserted quickly and through the cutis into the subcutaneous cellular tissue, and then pushed well in. During the injection the point of entrance of the canula should be covered with the left forefinger, and the canula itself gradually withdrawn, so that its point at completion of the injection shall be near the place of its insertion into the skin. On the removal of the canula, the forefinger, before quitting the skin, should press and rub the wound slightly to one side, as this prevents loss of the injection or of any blood. The wound may then be covered with a bit of plaster. With regard to diet, clothing, bathing, &c., this mode of treatment requires no departure from usual habits.\*

Nine months later† Dr. Grünfeld makes another report of 60 cases thus treated, comprising nearly all varieties of appearances. Nearly all were cured. Some of these cases went about their work as usual, during the treatment. The dose used was, as a rule,  $\frac{1}{4}$  gr. at each injection, though varied somewhat, according to the variety or intensity of the symptoms. The treatment was often interrupted on account of

\* Wiener Medizinische Presse, Nos. 17, 20, 24, 28, 1868.

† Ibid., No. 12, Dec. 5th, 1868.

the occurrence of salivation. Here Dr. Grünfeld does not mention the intervals of time between the doses, nor the whole number of injections administered in any case.

To the department for diseases of the skin, under the care of Professor Hebra, are sent cases of cutaneous syphilis, as well as other cases when, as often happens, all the wards specially devoted to this disease are full. Here, also, during the past year, similar experiments were made. Result unfavorable, 45 per cent. of those treated being salivated; and the advantages of this method over that by inunction not being specially manifested, the former has now been discontinued.

The following brief summary of facts noticed I compile from the protocols of the individual cases treated. Number of patients treated, 20. Of these, 16 men, 4 women. These cases included the most various forms, from simple exanthemata to old serpiginous ulcers and gummata. The duration of the disease at the time of entrance varied from four weeks to twelve years. The number of injections administered varied from five to forty-seven. All the cases were discharged "healed." Where several different manifestations of syphilis were present, the first to disappear was generally the roseola. The duration of treatment varied from 14 to 63 days, the cases of speediest recovery being either the very recent, with simple roseola, &c., or the very old, in which the only manifestations were ulcerations; which latter were in addition always canterized. In 9 cases salivation occurred, 3 of these being women. The earliest appearance of salivation was in a woman with papules and psoriasis palmaris of five months' standing. This occurred on the 5th day, after 5 injections. The latest was in a man with papules, infected twelve years before, who after 38 injections had a new eruption of papules, and after 47 inj., or fifty-eight days, became salivated. In this case inunction had also been used after the second eruption of papules. In two other cases inunction had also been employed from the first. Here salivation set in, in one case after 5 inj. and five days, in the other after 7 inj., eight days. As a rule the injections were discontinued when salivation occurred, and iod. pot. or sublimate baths were substituted. Other modes of treatment employed during the administration of the injections were, invariable cauterization of ulcers, and in a few cases the exhibition of decoctum zittmanni. There was no new formation of abscesses, and only two

cases of relapse, one the case of papular syphilis already mentioned, the other a second eruption of pustules upon a man after 30 days and 19 injections.\*

## Hospital Reports.

### MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY.

Some Cases in the Service of Dr. B. JOY JEFFRIES.

*Sudden Blindness from Glaucoma Fulminans cured by Iridectomy; with Remarks.*—A woman, æt. 52, had pain in the right eye, coming on suddenly, during the day, Oct. 20th, 1867, and by the next morning her sight in this eye was reduced to the simple perception of light. Five days afterwards she applied at the Infirmary, with all the typical signs of glaucoma and serous infiltration of the cornea. Iridectomy was proposed to relieve the pain, but with no great hope of restoring vision. It was not allowed till the next day morning, when I did it upwards. This caused cessation of the pain, and at 4, P.M., the patient was quiet, the other (left) eye remaining perfect. About 11, P.M., pain commenced in this eye, and the following morning, when seen by me, the patient was *totally blind with glaucoma fulminans*. I of course did iridectomy upwards at once, and also paracentesis of the right cornea, as the iridectomy had not seemed to have reduced the irritation entirely. In less than a month, Nov. 16th, the patient read Jäger 6 with  $+\frac{1}{2}$ , and vision for distance was  $=\frac{1}{2}$  with the left, the second eye attacked. The right eye was almost quiet, but has only perception of light. The patient was allowed to go home Nov. 18th. Shortly afterwards, Dec. 2d, she returned, with pain in the eye first attacked, the right, and iridochoroiditis. My colleague, Dr. Hay, under whose care she then came, extracted downwards the cataractous lens, with relief to the pain, and the patient was discharged Dec. 21st. 1867, vision remaining as above recorded. Within a fortnight, i. e. sixteen months after the first attack, the patient has presented herself to Dr. Hay, to be fitted for glasses for the left eye, which she now can use as before; and with the other, the first attacked, and from which the lens was extracted, she counts fingers with  $+\frac{1}{2}$ . An additional iridectomy

\* Jahresbericht der Abtheilung für Hautkrankheiten des Prof. Hebra in Wien.

for artificial pupil, he thinks, may give her considerable more vision in this eye.

Before the days of iridectomy this patient would have as certainly been blind in both eyes as she was saved one and perhaps the other by it. Of course, iridectomy should have been done on the other apparently perfectly sound eye at the same time. Unfortunately, we are too far from the period when physicians, much less patients, will realize this. The whole case was perfectly typical. In five days the disease had so damaged the right eye that iridectomy alone did not check the progressive trouble, which extraction of the already cataractous lens did. No doubt iridectomy, timely performed on the right eye, would have had the same success as in the left. This operation, which we must do, seems to hasten glaucoma in the other eye, and a patient should never be allowed to go out of immediate reach. In view of such a case as this, by no means so very uncommon, it would almost seem that the general surgeon or physician should be taught to operate for acute glaucoma, as every hour is one of increasing disease and lessening chances of perfect restoration of sight by surgical interference. At any rate he should know that, when a patient has become rapidly blind, has fearful pain, and the eye looks inflamed and is as hard as a marble, there is *something wrong*, and this something is glaucoma, for which iridectomy or its equivalent is the only cure, and the most brilliant discovery in ophthalmic surgery. I will not stop to discuss the relative merits of iridectomy and puncture of the globe as performed by Mr. Hancock, or what is in reality done by this latter. *Intraocular pressure* is the essential evil in glaucoma and must be relieved at once—the sooner, the better the chance for restoring sight to the eye. The ophthalmoscopic appearances in the optic nerve and retina are more or less truthfully given in the various textbooks on the eye. No plates as yet surpass those of Jäger and Liebreich. At present these are refinements for the ophthalmic surgeon. A hard, painful globe, dilated and muddy pupil, hazy cornea and rapid diminution of vision are the rough symptoms for the general practitioner to remember as connected with glaucoma, and not to be neglected or treated with *acetate of lead, nitrate of silver, or borax wash*.

The newest points in regard to operation are the suggestions lately made by Stellwag that perhaps the portion of iris need not be removed, the simple opening of the sclerotic and the subsequent presence of

an *elastic cicatrix* being sufficient to permanently reduce the intraocular pressure. He met with success in one case by thus operating; naturally, however, mentions it as to be imitated with caution. I tried it quite recently. The immediate prolapse of the iris, however, as I anticipated, called for its removal as usual. The use of Graefe's narrow cataract knife, instead of the bent, lance-shaped iridectomy one, to make our opening in the sclerotic with, is, I consider, often of advantage when the anterior chamber is much reduced in depth.

Since the introduction of iridectomy there have been many experiments carried out in reference to intraocular pressure, and a great deal of thought expended on it. Prof. Stellwag has lately carefully gone through critically all that has been done, and gives the following as the at present settled formulæ in reference to intraocular pressure:—

1. Intraocular pressure is essentially due to the lateral pressure of the vessels of the circulation within the globe.

2. Under otherwise normal relations of the eye, intraocular pressure is nearly constant, with perhaps individual variations.

3. The stability of the internal pressure is in close causal relation with the invariability of the amount of blood at the time circulating within the eye.

4. Stability in the amount of blood within the globe does not exclude an unequal distribution of it in the internal circulation; it implies overflowing of some parts, corresponding to emptying of others, and the reverse.

5. In this compensating change of fullness the uvea appears to play the principal part, from its being so largely composed of vessels.

6. The stability of the internal pressure and the intraocular amount of blood are both in the same manner referable to the regulating influence which the tense, elastic capsule of the globe exerts on the conditions of the circulation within the eye.

To Memorski is due the credit of having first called attention to these very important relations and their connection.

I would take this opportunity to warn against the use of atropine in anything which looks like glaucoma, especially as this drug is so generally used in ophthalmic practice, and nearly always with benefit. Recent observation and experimentation would seem to contra-indicate atropine as liable to increase intraocular pressure; how, we are yet unable to say.

It is, of course, not needed to dilate the



pupil, as this takes place from the disease itself, being a marked symptom. The accumulated literature of the past years, embodying the results of experiments and clinical observations, has lately been carefully analyzed by Stellwag, who says that the following may be regarded as practical conclusions in reference to the action of mydriatics and myotics, and the nervous relations of the iris.

1st. Mydriatics and myotics, applied as collyria, act principally on the ciliary ganglionic system.

2d. Mydriatics cause it to lose the power of allowing the passage of the nervous streams carried from the central end of the ciliary oculo-motorius branches; it remains, however, capable of receiving direct irritation, and that which comes from the sensitive terminal branches of the fifth, and transmitting this with undiminished force to the motor terminal fibres passing out from it, namely to produce contraction of the sphincter and ciliary muscle, acts, therefore, like complete interruption to conduction through the oculo-motorius trunk. The sympathetic tubes, on the other hand, leave the ganglia when these are affected by mydriatics, with increased irritation, unless the functional connection with the cerebral origin has been severed, since its interruption by cutting the cervical sympathetic weakens the reaction in a marked degree. Slight irritation of the sensitive trigeminal twigs may increase the degree of irritation in the terminal sympathetic branches through means of the ganglia; strong irritation, however, reverses this to paralysis, and deprives the ganglia of the power of conducting nervous streams that were started in the peripheral string or its centre. In the sympathetic and oculo-motorius tubes the functional disturbance of the ganglia from mydriatics is expressed in quite the reverse manner. The sensitive fibres of the trigeminus are not noticeably interfered with in their centripetal conduction.

3d. *Myotics*, acting through the ganglionic system of the eye, excite the ciliary terminal branches of the third pair, and hinder within their district the effect of the nervous streams which have come from the brain. On the other hand they (myotics) weaken or paralyze by their effect on these ganglia, the sympathetic ciliary nerves coming out from the ganglia, without, however, especially affecting the conduction between the central cerebral origin and the terminal subdivisions. The functions of the ciliary fibres of the fifth are but little if at

all affected by them (myotics).—*Der intra-oculare Druck und die Innervations-verhältnisse der Iris.* Prof. Dr. Karl Stellwag von Carion. Wien, 1868.

*Extreme divergent Strabismus, the result of Operation, relieved by bringing forward the Internal Rectus Muscle.*—A married woman, æt. 29, has extreme divergent strabismus of the right eye. With effort the inner edge of the cornea can be brought inwards up to the median line. The consequent disfigurement to the patient, otherwise a comely woman, is very great. The patient says it is the result of operation and after-treatment for convergent strabismus, by a surgeon in a neighboring city. April 26, 1868, I dissected a flap of conjunctiva, and found the muscle attached to it, and not to the globe. The muscle was dissected free, and a needle passed through the end of the conjunctival flap and the end of the muscle, and these sewed to the conjunctiva close to the cornea. Then the lowest corner of the flap was sewed to the conjunctiva below the centre of the cornea. The rectus externus tendon was now cut, and no conjunctival stitch taken. The patient had violent vomiting from the ether, and pain during the night, which had gone by the next day. As was feared, the muscle had been so frayed up or cut away by previous operation and treatment, that Dr. Agnew's method could not here be used by me. The muscle attached itself to the globe, and the eye was rendered straight for distance; it can also be readily adducted to bring the outer edge of the cornea to the centre. The stitches were left for six days, when one was found loose, and both were removed. A small piece of the frayed end of the muscle was snipped off. Four days after a small corneal ulcer appeared towards the inner side, where the muscle was attached. Atropine was used, and next day fungous granulations were touched with arg. nit. These sloughed off with some conjunctival irritation, but the pain, which had been troublesome at night, ceased. May 10, 1868, the corneal ulcer is healing, and the patient bears light; atropine continued. Discharged May 19, 1868. Vision in this right eye  $\frac{25}{25}$  at 4 ft. Vision of other eye  $\frac{3}{20}$  at 20 ft. A convergence of  $1\frac{1}{2}$  lines exists, in comparison most satisfactory to the patient. Ulcer nearly healed, motion good. I saw the patient in August again, and heard from her in September. There remained a fading opacity of the cornea where the ulcer had been. Patient could not use the eyes for continuous fine work over an hour. There was probably hypermetropia original-

ly, which caused the convergent squint, the operation for which produced excessive divergent squint, and a consequent reduction of vision in the eye to  $\frac{2}{5}$ . From the condition of the eyes the refraction had not been determined and corrected with glasses. This remains to be attended to.

June 20, 1869.—The patient writes me thus:—"The sight does not strengthen as I can perceive, but my eyes have an easy homefeeling, very comfortable and pleasant. I can thread a needle without trouble, and sew and read considerable."

A result so satisfactory in a case whose previous history was so unpromising, proves as Prof. Graefe has conclusively shown, that a carefully conducted operation can remedy many of the deformities we meet with, which are occasioned only too often by ignorant or blundering surgery. In fact, it is only recently that confidence has been restored, particularly in Paris, in the ordinary operation for squint. Every squinting eye was formerly operated on by the general surgeon, till finally the number of cases of want of success gradually prevented any from interfering with them.

There are some points about this case I think worth dwelling upon. The original insertion of the internal rectus was seen on the globe, looking exactly as if just severed, yet eight years had passed since this had been done. Very likely a portion of the muscle was removed at the time it was first operated on, or lost by subsequent sloughing. It had become attached to Tenon's capsule and the conjunctiva. Notwithstanding the action of the superior and inferior recti in turning the globe inwards, the contraction of the external rectus turned it outward to the fullest extent. The superior and inferior recti acting together could only with effort bring the inner edge of the cornea up to the median line. The internal muscle, upon being again brought forward and attached to the globe, resumed its function; this we know it will do, provided fatty degeneration has not taken place. Whether this was the case could not be determined before the operation. The muscle when mused will, as we know, retain its color and anatomical condition for years.

Next to the success of the operation in relieving a positive deformity, the most interesting point to me in the case was, the appearance and persistency of the ulcer on the cornea. It reminded me especially of the sort of ulceration we have from a bruise or scratch of the cornea, or the ulcers of nento-paralytic origin, e. g., after section of

the trigeminal nerve in the rabbit. Dr. Steffan, in the *Monatsblätter für Augenheilkunde*, 1867, p. 73, reports a case of sloughing of the cornea after operation for bringing forward the rectus. There was, however, paralysis of the oculo-motorius, and moreover the thread by which the globe was steadied may have irritated the cornea and caused suppuration. I used no thread as a guy to turn the globe; the conjunctivæ and lids were normal; not quite a half of the conjunctiva around the cornea was interfered with, and the light compressive bandage had been removed before signs of ulceration. Atropine alone was used to affect the ulcer. There was no injury done to the cornea before or after the operation. The patient, although suffering some pain, and worried by the operation, was otherwise in good physical condition, and in no way, at least, in that state which disposes to corneal ulcer.

Without some explanation, the treatment of this case might be open to criticism, since I deviated from the precise rules laid down by those who have practised it with most success. Prof. Graefe, for instance, advises against touching granulations with caustic. It must, however, be remembered that I did not have the ordinary end of the muscle or its tendon to deal with, but a frayed mass, which I was inclined to cut off at the time of the operation, and regretted afterwards not having so done. From this came the granulations which the caustic removed, to the relief of pain and discomfort. Again, I used no thread as a guy to steady the globe in its new position, contrary to express rules for this operation. The result proved that in my method of operating a guy was not necessary. It certainly is an advantage to avoid its use, from the difficulty of retaining it properly in place, and preventing its cutting through the muscle, more especially as we have to give ether, and may have the patient vomiting and tossing about some time after the operation. If a thread had been applied as a guy, the ulcer of the cornea might naturally have been attributed to it. Dr. Liebreich, who has lately succeeded in restoring confidence in the operations for squinting in Paris, reported, last September, at the Heidelberg meeting, a method of operating for bringing forward the muscle almost similar to the one I used in this case, his object being to avoid the loss of conjunctiva. It may also be asked, why did I leave the stitches so long. My reason was, that they produced no irritation, and not having used any guy I was of

course anxious to keep the globe rolled in all possible. The stitch in the ordinary operation for squint is frequently left to come away of itself, which it does without trouble. The method and means of limiting the amount of the operation I will not dwell upon here, and would only say that the operator gladly sees a convergence of  $1\frac{1}{2}$ " afterwards. The convergence left in my case, if it does not disappear, as it generally does, is only too gladly changed by the patient for the divergence which directed the cornea at right angles to the visual axis of the other eye.

As soon as an eye deviates from its fellow so as to be thrown out of use, or its retinal impression suppressed by the brain, we know that its power of vision begins to decrease, and hence the importance of operating on squint in children early, in order to restore binocular vision and thereby preserve visual power. A careful examination of the refractive accommodation and vision in each eye is always the first step in deciding whether to operate, and how. Neglect of this and ignorance of its meaning and necessity have gradually caused great lack of confidence in all strabismus operations, and many eyes have in consequence, the past ten or fifteen years, been permanently injured from not having been operated on. Now, when an eye is brought back to act with its fellow, we know the power of vision will be restored, at any rate to a certain extent. Vision in my case had been reduced to  $\frac{1}{25}$ th of the normal; I do not look, therefore, to much improvement of sight in this eye. Even this amount assists, however, more than we should imagine in binocular vision, and is a great guard against injury approaching from that side. I have always been surprised to find this point unnoticed in the accounts of operations for squint; it is not discussed by Graefe. For the operator it is important that he should have the record of vision before operating, if only to prevent the patient suing him for having destroyed or injured the sight of the eye.

THE FIRST SUCCESSFUL CASE OF HIP-JOINT EXCISION IN PHILADELPHIA.—Dr. John H. Ashhurst, Jr., Philadelphia, relates in the *Pennsylvania Hospital Reports* the "first successful case of hip-joint excision which has ever occurred in Philadelphia." He adds a tabular view of 242 cases of hip-joint excisions, which is the most complete yet published.—*Medical Record*.

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## Bibliographical Notices.

*Annual Report of the Trustees and Superintendent of the State Lunatic Hospital at Harrisburg, Penn., 1868.*

A SINGLE remark from the report of the Board of Trustees will show the limited provision yet made in the State of Pennsylvania for its insane population. "If five more hospitals," they say, "of the capacity of those already in active operation, were at this time ready for occupation, they would not more than meet the existing wants of the insane of this commonwealth; and very little accommodation would be found for the recent cases constantly occurring in all sections of the State."

The Superintendent, Dr. John Curwen, reports the whole number of patients under treatment during the year as 520. The number of admissions was 180—males 103, females 77. The number of discharges was 164—males 86, females 78, and the number remaining in the hospital Dec. 31, 1868, was 356—males 202, females 154. Of those discharged, 26 males and 21 females were restored; 14 males and 23 females were improved; 27 males and 28 females were stationary; and 19 males and 26 females died. The causes of death were—exhaustion of acute mania in 10, exhaustion of chronic mania in 10, disease of the lungs in 2, and strangulative disease of the brain, and epilepsy, one each.

Considerable repairs and improvements have been made in the buildings to perfect their internal arrangements and give more room for the accommodation of patients, making this, now, one of the largest and most convenient hospitals in the country.

The Doctor, in speaking of the erroneous impressions concerning the insane prevalent in the community at large, says:—"These impressions have been received from what they heard in relation to the treatment of the insane in former years, and from the ideas which still continue to prevail in relation to the nature and character of mental disorders. The prevalent impression seems to be that when an individual becomes insane all the faculties of the mind are so entirely disordered that they have no longer any knowledge of what is going on around them. Very few people have had an opportunity of seeing insane persons and of knowing how they may act; and ignorance of the true charac-

ter of the disorder can therefore hardly be wondered at. They have heard statements made by others of what they may have seen an insane person do or say, and these generally refer to cases of high excitement, whose language is of the most incoherent character, and their actions and conduct correspond; or to those whose perceptions are very much obscured, and who pay very little attention to what is passing around them, or have very little to say to any one. But between these two extremes there is every variety of deviation from the normal healthy condition of the intellectual and affective powers. In this variety consists the great difficulty of detecting what may be the healthy and what the unhealthy manifestations, and the consequent diversity of opinion as to the soundness and unsoundness of the mind of any given individual. A man may entertain delusions about himself or his family and his friends, which render him a perfect terror and torment to all with whom he may be on familiar terms, and yet in the presence of strangers and in the transaction of certain business matters he may be calm and more shrewd than usual, from the fact that the condition inducing the mental disorder may have sharpened his wits for the necessary business encounters with his fellow-men."

It is probable the *medical treatment* pursued in this hospital does not differ materially from that in other institutions of a similar character. The subject is not mentioned. The *diet* consists of plain, substantial, nutritious and well-cooked meals, served at regular hours; special provision being made for the sick. Out-door exercise is constant in suitable weather, and labor of some kind recommended.

The evenings are devoted to entertainments of a varied character, and on the Sabbath service is held regularly every morning, at which all who desire can be present. All are invited, but none are obliged to attend.

The discipline aimed at in all the arrangements is similar to that of a well-regulated family.

C. K. B.

PREGNANCY AFTER OVARIOTOMY.—Dr. T. Spencer Wells, in a note to the *Lancet*, says:—"Of more than twenty patients who had recovered after ovariectomy in my practice, and had subsequently become pregnant, I have not heard of one case in which there was any unusual suffering or difficulty during pregnancy or labor."

## Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 2, 1869.

### NOTES FROM FRENCH JOURNALS.

*Ingestion of three Grammes of Croton Oil by a Child of six years, without serious Injury.*—This drug, says the reporter of the case in the *Gazette des Hôpitaux*, though uncertain in its action, as shown by Trouseau and Pidoux, is yet capable of producing most dangerous symptoms and even death. The little patient in the present case was given by mistake three grammes of the oil in a cup of coffee. She took it in the morning before breakfast. She complained at the time of the detestable taste of the medicine, and of tingling in the fancies. A little while after, she had severe pain at the epigastrium, soon followed by violent and profuse vomiting, lasting for about three quarters of an hour. She then passed into a profound sleep of four hours' duration, at the end of which time she asked for food and was supplied with soup. She had no more pain, and only two loose but moderate dejections. The next day she was quite well, the only remaining effects of the drug being patches of vesicular eruption on those parts of the skin with which the ejected oil had come in contact.

[This reminds us of a case reported some years ago to the Boston Society for Medical Observation, by Dr. Slade, in which a very large dose of croton oil (we think ten drops) was accidentally administered to a patient, with no more effect than the ordinary dose usually produces. It was suggested, at the time, that there might possibly be in some persons such a thing as a sort of functional saturation of the system relatively to the drug, which would limit its effects.

In the French case, doubtless the free emesis removed a large portion of the oil. But, as the reporter suggests, it would be remarkable if a single drop had not remained; and in that case why was there not active purgation?—Ed.]

*Bleeding in Pneumonia.*—A clinical lecture with the above title, delivered by Dr. Peter at *La Pitié*, is given in the *Bulletin Général de Thérapeutique*. The lecturer begins his remarks by saying that a monstrous thing had taken place the day before—a patient had been *bled* in a medical ward! It was by a vindicating revolution of the wheel of events here below (*par un juste retour des choses d'ici bas*) that this occurred at Paris, where half a century ago blood was wont to be poured out with such prodigality, and where latterly bleeding had become a thing almost unknown.

The patient had pneumonia. He was 19 years old, pale and of lymphatic temperament—did not appear very sick the evening he entered the hospital. The next morning matters had entirely changed. The patient was very pale, but his pallor was that of asphyxia. His lips were purple, his face being livid, and his nostrils indicating by their action the dyspnoea of suffocation. He respired *sixty-eight times per minute*, while his pulse was from 128 to 132. Thus there was manifest want of accordance between the respiration and the cardiac action, the relation of one to the other being almost as 1 to 2 instead of 1 to 4, as is usual. He was in a state of ill-boding somnolence, from which questions addressed to him hardly roused him.

Bleeding was ordered. On returning to the bed-side after that had been done, the class saw him sleeping quietly. The movement of the *alæ nasi* had ceased. The pulse was 108, the respiration 48. The latter had gone down, therefore, one third; and that in less than five minutes. The patient, on being interrogated, replied that he felt much better, and asked only to be let alone, so that he could sleep. In the morning, the oppression having partially returned, twenty dry cups were applied to the chest.

The following day—that is, two days after his entrance into the hospital—his pulse was 88, and this individual, as the lecturer triumphantly says, who yesterday was suffocating, to-day feels scarcely sick at all, and is almost ready to ask for his discharge.

The lecturer declares that it is through a defective interpretation of pathological

physiology that modern theory has denied the utility of bleeding in pneumonia, both for the lesion and the patient. He says it is admitted that by diminishing the mass of blood in circulation the power of absorption is increased, and that in consequence of this the removal of the exudation may be hastened. In this respect, therefore, it is held that bleeding may be useful in pneumonia. The hydraulic argument in favor of bleeding, he however thinks, is not a very happy one. For, admitting, he argues, with Valentin that the mass of blood in an adult man is about 12 kilogrammes, a bleeding of 500 grammes, diminishing the mass of the fluid in circulation *one twenty-fourth*, augments by only one twenty-fourth the power of absorption in the pulmonary vessels—a decidedly slender result. The morbid product in the lung, then, being diminished only one twenty-fourth, there is a material betterment of the patient of only one twenty-fourth. Now, M. P. demands of all those who have watched a patient with pneumonia after bleeding under certain circumstances, if this sorry amount of improvement is all that is gained. Instead of this fractional amelioration, necessarily tardy, that the hydraulico-physiological theory accords, there is a decided and immediately wrought condition of well-being. Pain has diminished or disappeared; dyspnoea has undergone the same modifications; the fever is lessened; the pulse is less rapid; the temperature lower. Such, he adds, was his patient, and such are all like him after bleeding. He thus seems to go beyond those who merely claim that bleeding is advisable for the suffocation which sometimes attends pneumonia.

M. P. now contends that instead of a hydraulic action, bleeding produces its effect by a dynamic influence through the nervous system; in the same way as tartar emetic acts, which does its work without the spoliation of any material from the body. He assumes that, in view of future reparation, we should not economize the blood too much; should not, because pneumonia is a disease of *cycles*, with a fixed course, contemplate its changes with Platonic coolness. For, he says, in order that the patient—the *pneumonist*—may “assist” at the cure of

his pulmonary lesion, it is absolutely necessary "that he should live as long as his lung;" and that he do not die at the first period of his famous "cyclic" malady.

[For ourselves, we are converts to the usefulness of bleeding, for the suffocation of pneumonia, in those rare cases where it occurs. We are also ready to be convinced that it may sometimes improve the general condition of the patient with pneumonia, even when the dyspnoea is not alarming. But, we have not been in the habit of seeing cases where it is called for.—Ed.]

*Stimulants in Pneumonia.*—Dr. Gros has had good success (*Union Medicale*) in treating pneumonia and broncho-pneumonia in infants of enfeebled or prostrated condition, with alcoholic stimulants. The tolerance, in the worst case, was noted to be diminished as the patient—an infant—improved.

*Paracentesis Pericardii.*—M. Roger reports (*Un. Méd.*) a case, with autopsy, of puncture of the pericardium in a girl of 12 years. In his remarks he says, there was failure of the usual remedies, and necessity for surgical intervention; and that the operation was harmless in itself, notwithstanding its great difficulties. The heart was displaced—lowered; but, on the other hand, its point was more easily found than usual, and consequently more easily avoided. Instead of inserting the trocar in the fifth intercostal space he introduced it into the sixth, at a point nearly equidistant from the mammary vessels and the apex of the heart; being guided also by the exceptionally visible pulsations. He withdrew 780 grammes of serum without getting all there was. The alleviation was immediate and marked, but the next day after the operation, concretions suddenly formed in the heart, especially on the right side; cyanosis and peripheral algidity showed arrest of the circulation; a clot obliterated the pulmonary artery in its right branch; and in consequence of all these lesions, together with hæmorrhage at the summit of the right lung, death supervened by rapid asphyxia, in less than three hours.

Dr. R. asks, why did the coagula form in the cavities of the heart, when there was no endo-carditis, and when through the

abstraction of the serum by paracentesis, the organ, being no longer compressed, was more free in its movements? He answers that we must introduce into the chain of causation, here, the alterations of the blood common in the phlegmasiæ, and as for this case the *myocarditis* revealed at the autopsy. He exculpates the operation from all share in the fatal result, because the autopsy showed that the puncture was made at a suitable place, without injury to the substance of the heart, or to other organs, and without the development of traumatic pleurisy or pericarditis. In doing the operation, he adds, the possibility of myocarditis being present as a complication should be taken into account. He is opposed to delaying the operation to the last moment, and in favor of puncturing in season to avert the effects of long compression on the surrounding organs, and also to arrest the inflammatory process by the abstraction of one of the products of inflammation.

A Thesis presented to the "conours d' Agregation," reported in the *Gazette Hebdomadaire*, is by M. Lanceraux on Diabetes Insipidus—Polyuria. M. Lanceraux states that this affection is surrounded by a certain amount of obscurity for three reasons: that it is rare; that the analyses of the urine have often been incomplete or inaccurate; and because authors have sometimes set up ill founded or premature distinctions. Of the former he cites as an example, that between polydipsia and polyuria; of the premature distinctions he refers to that between simple hydruria (polyuria with very watery urine, and containing but little solid matter), anazoturia (diminution of the proportion of urea), and azoturia (exaggeration of urea). M. Lanceraux aims at more simplicity. With him, polyuria is a symptom developed in certain pathological conditions, as diabetes mellitus, diabetes insipidus, albuminuria, &c. It is only according to the characteristics of the urine, that we should define polyuria, or *diabetes insipidus*; and on this basis polyuria should be understood to be "a morbid state characterized by an exaggerated and not temporary emission of urine which is of feeble specific gravity, and devoid of sugar or albumen." Azoturia should be eliminated from the study of polyuria.

Pathological anatomy has not furnished us any precise instruction on this subject, unless it be that the kidney is not the source of the disorder. We are obliged to confine ourselves to the hypotheses, more or less plausible, of an alteration in the composition of the blood, of an augmentation of the pressure, or of an acceleration of the circulation in the kidney; all this being dependent on some lesion or other of the central nervous system which then acts through the intervention of paralyzed or excited vaso-motors (Roberts, Kien), or through that of the nerves of secretion situated between the artery and the renal vein (hypothesis of Wittich). However this may be, it must be acknowledged, says the reviewer, the question advances toward a solution; and it is in the nervous system that we must seek it. Clinical observation shows this. In 51 cases analyzed by M. Lanceraux, the pathogenic and etiological conditions are invariably seen to bear more or less directly on the nervous system. Here it is traumatic lesion of the head, there contusions, severe injuries on different parts of the body, excessive efforts, violent emotions; sometimes, again, it is hysteria, recent or former alcoholic excesses, sudden chilling of the surface; occasionally sunstroke, or acute disease. Finally, heredity is counted as an influence—a cause so powerful in all that relates to affections of the nervous system.

*"The Treatment of Diabetes Mellitus"* was the subject of M. Brouardel's thesis. We extract only a word or two from the analysis of it. The experience of Fick and Wislicenus in their ascent of the Faulhorn after a diet composed entirely of starchy matters—together with other experiments—lead to the belief that muscular action destroys a large proportion of sugar. An important case, observed by the reporter (a physician), in his own person, is cited by M. Brouardel. The diabetic, tired of following out assiduously and without success, the most rigid plans of treatment, such as a diet exclusively nitrogenous, *eau de Vichy*, iodide of potassium, arsenic, &c., got well in six months while using regular and vigorous exercise in the open air. The author, M. B., draws the conclusion that there is no

medication which is applicable indiscriminately to all patients with diabetes. Certain of the means proposed, he asserts, have effected authentic cures. But the first thing to consider is the multiplicity of the causes of diabetes. The treatment should, when practicable, be addressed to the cause, which, however, often escapes discovery.

DR. GROUX BEFORE THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. TELEGRAPHIC AUSCULTATION.—This Association has recently been in session at Salem, Massachusetts. At one of the meetings Dr. J. Baxter Upham, of this city, introduced Dr. Groux, whose remarkable malformation is well known to the medical public. We take the following account of the proceedings relative to Dr. Groux and others from the *Boston Daily Advertiser*:—

Dr. Groux was born in January, 1831. At the age of three years he was subjected to a private examination by the physicians of his native city to determine whether any surgical operation should be recommended. He attended school regularly during his youth, joining in all the sports of his play-fellows. At the age of fifteen he went to London, where he was visited by the principal physicians. On his return to Hamburg he was placed in a drug store, but he was soon attacked with pleurisy in his right side, which left him very feeble. In 1851 he began the tour of Europe, where his case excited universal attention, and in 1856 he was retained for some time in Russia, against his will, by government authority. In 1858 he visited America, returning in 1859 to attend medical lectures in Göttingen, where he received the degree of M.D. in 1862. After walking the hospitals of London, and receiving numerous diplomas, he removed to Williamsburg, N. Y., where he has since remained, in successful practice.

Several cases of somewhat similar malformation have been reported, but the present is the only instance in which the absence of the sternum was congenital and complete, and the patient so intelligent as to be able and desirous to make his position as valuable as possible to science.

Dr. Upham described the anatomical position, appearance and action of the heart, stating that our knowledge of its position has been improved by an examination of

Dr. Groux, the relaxed muscles of the corpse causing it to fall somewhat from the place that it naturally holds in life. The sounds of pulsation were fully described, as well as the intervals between the successive portions of the pulsations in the auricle, the ventricle and the aorta. Those intervals have been measured in thousandths of a second, by the chronograph, which was invented by the late Prof. Bond, of Harvard University.

Dr. Groux then proceeded to try some experiments on himself, removing his coat and exposing his breast, so that it could be readily seen that there was nothing but muscular integuments between the skin and heart. He exhibited photographs and drawings to explain the peculiarities of his malformation, and by placing feathers on various portions of his breast he made each beat of his pulse plainly visible to the entire audience. Galvanic wires, connected with bells, were then substituted for the feathers, and the pulsations were made audible as well as visible.

Two physicians were invited from the audience, one of whom applied a stethoscope to the breast, while the other held his finger on the pulse of the right hand. Dr. Groux then took a deep inspiration, and compressing his lungs, the motions of the heart were made to cease for several seconds. By slow inspiration the flow of blood was partially arrested, and the auricles filled with blood, so as to appear swollen. India-rubber tubes, with glass extremities, filled with different colored fluids, were also applied in such a manner as to show the successive portions of each pulsation.

After explaining the improvements in the diagnosis of aneurisms which the case had suggested, Dr. Upham proceeded, with the aid of the telegraph and magnesium light, to render audible and visible the pulsations of patients in the City Hospital in Boston, Mr. Farmer having charge of the telegraph instruments in the lecture-room, Mr. Stearns at the City Hospital, and Dr. Knight, assisted by the internes of the Hospital, taking the medical direction. The Franklin Telegraph Company placed their entire line between Salem and New York at the disposal of the Association, and every pulse-click of the magnet was heard simultaneously at every station on the entire line. Dr. Flint, in New York, and Dr. Ives, in New Haven, will probably report the receipt of the information at those stations.

One purpose of Dr. Upham in exhibiting these experiments was to show the truth of

the suggestions he made some years since in regard to the retardation and weakening of the pulse through the influence of aneurismal tumors under certain circumstances. Normal and abnormal pulsations of the heart were told off by telegraphic communication from the City Hospital in Boston to the audience hall in Salem, some fifteen miles distant. So marked were the manifestations as to enable those witnessing them to judge correctly of the diseases of the patients. Dr. Upham does not claim any great practical results from these attempts; but only that they are suggestive of what may possibly be done in that direction in the future. It occurs to us as within the range of possibility that such experiments may be put to use in the public auditorium of the clinical lecturer.

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MODERN HOMOEOPATHY.—From the *London Monthly Homoeopathic Review* for June, 1868, we learn that Lord Ebury gave vent to a feeling of regret that the report of the London Homoeopathic Hospital did not contain evidence of a greater development of the objects of the institution. The number of patients was not very large, and the clinical lectures had been given up, "owing to the attendance being so scanty as greatly to discourage the lecturers." In the London Homoeopathic Hospital, in which the cases are not of so serious a character as one is accustomed to see under treatment in hospital, black wash is applied to syphilitic sores, and  $\frac{1}{2}$  gr. doses of mercury given internally. Cases of glandular enlargement in the neck were treated with tincture of iodine painted on externally. For cases of continued sleeplessness 1.48 [?] of a grain of acetate of morphia was given every fifteen minutes. The hospital physicians repudiated, one and all, the fallacies and absurdities of Hahnemann about infinitesimal doses and dilutions.—*Detroit Review of Medicine and Pharmacy*.

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SUPPOSED AMPUTATION OF THE FINGER OF A CHILD IN UTERO BY THE FUNIS. By EDWARD CHEATLE, L.R.C.P. Edin., Revesby, Boston, Eng.—On June 8th, I attended Mrs. R. in her third labor. The labor was natural, with the exception of the funis firmly encircling the neck and left arm, the pressure being so great that I had to resort to artificial respiration for some minutes, which, after a time, was successful. While I was



using means for resuscitation, I noticed the absence of the second finger of the left hand; and, on a more careful examination, I found a distinct cicatrix at the end of the metacarpal bone, presenting the appearance as if amputation had been performed at the metacarpo-phalangeal articulation, the same wide space being left as would occur when the head of the metacarpal bone is not removed. The idea occurred to me that it might have been amputated by the funis, as that encircled both arm and neck.—*British Medical Journal*.

THE PONS VAROLII THE NERVOUS CENTRE OF GENERAL CONVULSIONS.—II. Nothnagel (*Virchow's Archives*) arrives at the following conclusions in regard to the nervous centre of general convulsions, which are derived from actual experiments. The centre of general convulsions is situated in the substance of the pons. Its lower boundary is corresponding to a section at the height of the inferior border of the pons. The faculty to perform the function of a centre of spasms is to be denied to the substance of the medulla oblongata.

Finally, he endeavors to prove that the spasms are produced by way of reflex. In some instances the section of the medulla oblongata had been made below the pons, the animals remaining absolutely quiet. Again: the convulsions occurred if the section had left a portion of the pons connected with the medulla oblongata, showing the centre of action to be situated outside of the medulla.

At last the anatomical condition of the region of spasms is confirmatory to the view of reflex action. The region nearly corresponds to the situation of the gray nuclei and root-fibres of the sensitive cranial nerves. While the nuclei and roots of the motor cranial nerves are near the raphe, those of the sensitive nerves are more lateral. The root-fibres of the portio major trigemini in particular, descend, according to Schroeder van der Kolk, through the whole length of the medulla. This anatomical condition, it must be conceded, is no direct proof of a reflex action, but it renders it admissible and plausible.

From all this it seems that the convulsions following the injury of a defined region on the floor of the fourth ventricle are to be explained as spasms induced by reflex action.—*Dub. Med. Press & Circular*.

CRIMINAL ABORTION NOT CONFINED TO THE UNITED STATES.—In the London *Medical*

*Times and Gazette* we read that "a miscreant named Fowkes, described as a newspaper agent, has been sentenced, at the Warwick assizes, to ten years' penal servitude for the felony of attempting to produce an abortion on the person of a young woman named Susannah Bromfield. The seducer of the girl, one Bailey, who took her to Fowkes for the purpose, has been sentenced to five years' imprisonment. The counsel for the defence tried to make the girl an accomplice or consenting party, and urged that it was necessary that corroborative evidence should be produced before a conviction could take place. The only corroboration that could be offered was the testimony of the police, who found medicines, books and instruments on Fowkes's premises, and who proved that when Fowkes was apprehended he asked, in Bailey's presence, whether, if Bailey married the girl, the prosecution would be stopped. We are glad that the judge, in summing up, completely disposed of this plea—first, by directing that, to make the girl an accomplice, she must have known that an instrument was to be used on the first occasion of her going to Fowkes's shop; and that, even if the jury considered her an accomplice, the evidence of the police, and the admission implied in Fowkes's question to the police, were sufficient to support her story. We are glad that the judge (Mr. Justice Brett) took this decided line. In too many of these cases some legal quibble has produced an acquittal, when the evidence of guilt to ordinary persons was quite clear. If the judges show themselves determined to uphold, in spite of legal difficulties, what we fear is an increasing crime, they will deserve the thanks of the community."

CIRCUMCISION.—From an article on this subject by A. B. Arnold, M.D., Baltimore, Md., in the *New York Medical Journal*, we make the following extracts:—

\* \* \* Herodotus alludes to the customs of circumcision among the Egyptians, the Colchians, the Ethiopians, the Phœnicians, and certain tribes of Syria. On the authority of Clemens of Alexandria, it is reported that Pythagoras had to submit to circumcision before he was allowed to be initiated into the mysteries of the Egyptian priesthood. It is remarkable that while the Mohammedans practise circumcision as a religious observance, no command is contained in the Koran to make this rite obligatory. This evidently shows that, among the Arabians, with whom the Moslem reli-

gion originated, the usage of amputating the foreskin had acquired a sanction, which not even a radical change of religion could weaken in the least. The Bible informs us that Abraham was circumcised, in obedience to divine command, and yet it is singular that Scripture is silent in regard to the question, whether the patriarch, who was then ninety-nine years of age, circumcised himself, or was circumcised by some other person. The context in which this biblical passage occurs, and argument from the verbal construction of the language employed, suggest the inference, that the practice of circumcision in Abraham's time was already an established custom. \* \* \*

The query arises, however, why the external genital organ of the male was selected for the mark of the Abrahamic covenant? Some of the learned men have found no difficulty in solving also this problem. The ancient Egyptians and the Syrian tribes inhabiting portions of Asia Minor, symbolized the creative or generative power of the Deity by crude images of the pudenda. Herodotus tells us that, when he travelled through Syria, he saw a number of such ill-shaped things (phalli) erected on hills, and in groves. The foreskin was imagined to be an obstruction to the functional activity of the male organ, and was therefore removed as an inappropriate appendage. This seems to be indicated by the Hebrew word *orel* (prepuce), which is used in the sense of impeding or checking. \* \* \*

Among a large number of rules contained in the Talmud respecting circumcision, the following are noteworthy:—If a father lost two boys by circumcision, he was absolved from having the succeeding full brothers circumcised. Sickly and feeble children, or those whose skin is unusually red, or yellow, are exempt from the operation. The advice of a physician is necessary whether a child is able to undergo the operation at the stated time. \* \* \*

The operation of circumcision is a very simple affair, and, if properly performed, ought to be finished in less than a minute's time. In the hands of non-professional persons, the operation looks, sometimes, formidable enough, owing in some measure to the accompanying ceremonial, but more especially to the remnants of the vicious surgery of a past age. The most objectionable feature is the squirting of wine on the fresh wound, followed by the sucking of blood with the mouth. This procedure, technically called *mezizah*, has recently found many and influential opponents within Jewish communities, and has even been

interdicted by Rabbins of high authority. I have never imitated this practice, which, I am happy to say, meets the approval of American Israelites of this city, and received the sanction of the late pious and learned Rabbi, Abraham Rice, who was then at the head of one of the most numerous and orthodox Jewish congregations of this country.

The apparatus used consists of a two-edged knife of considerable size, rounded off at the point, where it has a dull edge. Perhaps a pair of scissors would be preferable, but this innovation has not yet been attempted by any one. I use a small scalpel, as the convex blade offers some advantage. A guard, or shield, composed of a plate of silver or ivory, having a slit in the centre which runs longitudinally for compressing the prepuce, is now in general use. The operator keeps the nails of both his thumbs sharply pointed. A glass of water and a narrow strip of lint complete the preparation. The person who holds the child sits on a chair, his feet resting on a low stool, and approximates his knees. A small pillow is placed on his lap, on which the child is laid on the back, with the head directed toward the left side of the assistant, who carries his right hand under the knees of the child to steady them by his thumb, his left hand passes over the left shoulder of the child, by which he keeps the trunk in position. The operator stands at the feet of the child, and seizes the prepuce between his left thumb and index finger, and draws it upward. He then slides the guard from above downward, and from right to left, over the prepuce, which is constricted between the fingers and the glans. The knife is now held outside of the guard, and with one cut, or perhaps two, the foreskin is severed. Immediately the wounded cutis of the penis retracts behind the fossa, and occasionally to such an extent, that the penis acquires the appearance of having been completely skinned. Only a small portion of the inner lamella of the prepuce is usually cut away, and, being of a less elastic nature, is found to cover a part of the glans. Sometimes it remains intact, and may still cover the entire glans, and even project beyond it. If this be the case, it ought to be removed by a short sweep of the knife, as it would otherwise dangle about in shreds after the parts have healed. Generally, however, the glans is exposed sufficiently to allow of the next stage of the operation. This consists of the laceration of the inner fold of the prepuce, and is done for the purpose of divesting the

glans of the remaining portion of the foreskin. After the guard has dropped, or has been removed, the nail of the left thumb is introduced between the inner lamella of the prepuce and the glans, and held tightly with the aid of the left index finger, and is then gently drawn upward. The nail of the right thumb is introduced in a similar manner, but opposite and nearly in contact with the other nail, so that, in conjunction with the right index finger, the free margin of the circumcised skin is torn on its superior side to near the corona glandis. Very little blood escapes, and nothing further is required to be done than to wrap a narrow strip of lint around the wound, which is kept *in situ* by the agglutination of the blood, and protected from friction by pinning the diaper in the usual manner. The wound heals rapidly, although a slight tumefaction of the parts is frequently observed on the next day, when the dressing may be safely removed and replaced by a thick layer of the common infant powder. \* \* \*

Dr. Arnold goes on to speak of certain deviations from the normal type of the prepuce for which the operator should be prepared. From among these we quote the following:—

A kind of malformation is sometimes met with in male infants, which causes considerable anxiety to the parents, and seems to forbid the operation of circumcision. In these instances, the scrotum and the enclosed testicles are perfect and in proper position, but the place of the penis is occupied by a small globular tumor, resembling a nipple, which proves to be the point of the prepuce. On closer examination, the finger will feel the body of the penis imprisoned behind the little pouch of foreskin, and ready to spring forward when released from its confinement by circumcision. \* \* \*

PARACENTESIS PERICARDII.—Dr. Clifford Allbutt reports a case in which this operation was performed with markedly good effect. In a former case, which he had under his care two years and a half since, the success was complete and final; in the present instance, the operation only acted as a palliative. The patient was a weakly girl, aged 27, in whom pericarditis with extensive effusion had come on somewhat insidiously, and was causing the greatest distress; it was thought she could not survive the night. However, some stimulants having been administered, the force of the pulse was somewhat increased. Friction sounds were present, but there was such

unequivocal evidence, from other physical signs, that there was not merely lymph, but a *large* quantity of serous effusion, that Dr. Allbutt requested Mr. Teale to operate. A fine exploring trocar was inserted in the fifth interspace, about an inch from the left border of the sternum; the point was thrust upwards and inwards till it touched the heart. The point was now sheathed, and the cannula was driven well home, till the heart jerked it to and fro. The cannula was then partly withdrawn, and serum began to flow. The tube now slipped a little and the trocar had to be re-inserted, to carry it home. The straw-colored serum now flowed again. About five ounces of fluid were drawn off, and the patient experienced great temporary relief. The case had, however, too far gone; there was extensive oedema of the lungs, and on the following day the patient was as bad as ever, and there was so much distress that the puncture had to be repeated. It again gave great relief, though not so great as the first operation had caused, but the patient sank a few hours later from bronchitis and pulmonary oedema. Dr. Allbutt remarks that tapping the pericardium is really a very simple operation; and that there is no reason to fear that a slight accidental wound of the heart would do any harm. On the present occasion a little air accidentally entered the pericardial sac. Dr. Allbutt will in future cases guard against this by connecting the cannula with an India-rubber tube whose extremity dips under water. He points to the ready emptying of the sac by the expansion of the lung, in this case, as a refutation of Oppolzer's objection to the operation—that the sac, having no elasticity, and being placed in the unyielding chest-cavity, cannot be properly emptied, or if emptied will re-fill.—*Lancet*.

INTESTINAL OBSTRUCTION CURED BY ENTEROTOMY.—Cases of this kind are so rare that it may be well to mention one which was brought before the Société de Chirurgie by M. L. Thomas, of Tours. The operation was performed, as usual, in the right flank, and an enormous mass of feces escaped from the distended cæcum, which had been sewed to the abdominal wall. In a few days the natural passage through the intestine was reestablished, and everything went excellently well up to the twenty-fourth day, when a fresh accumulation of feces occurred, in the iliac flexure. However, this was removed by the persevering use of enemata with a long tube; and the natural

action of the bowels becoming perfectly re-established the artificial opening nearly closed of itself. The cure appears quite permanent.—*Jour. de Méd. et de Chirurgie Pratiques.*

**SUSCEPTIBILITY OF THE SKIN OF NEURALGIC PATIENTS TO BLISTERS.**—Dr. T. King Chambers has addressed an interesting query to us, which we are at present unable to answer satisfactorily, and we invite our readers to assist us with the results of any careful observations which they may have made on the subject. The question is, does neuralgia generally diminish the susceptibility of the skin of the painful parts to the vesicating action of cantharides? Dr. Chambers has observed a certain class of neuralgic cases—those, namely, which are associated with mental depression and hypochondriasis—in which this deficient power of reaction in the skin does appear to exist, and he inquires whether the fact is true of other forms of neuralgia. So far, the evidence which we have been able to obtain on this point is conflicting, but we invite further communications from those of our readers who have had large experience of the treatment of neuralgic affections.—*Practitioner.*

**SERIOUS CHARGE AGAINST A MEDICAL PRACTITIONER.**—We quote from an Irish paper the following report. It furnishes another instance of the dangers to which medical practitioners are exposed in the honorable discharge of their duties. Dr. Wm. Bennett Forde was placed at the bar charged with a felonious assault. \* \* \* Mr. James Green, Q.C., stated the case for the Crown. The prisoner was a medical practitioner at Queenstown, and the prosecutrix, Ellen Kearns, was a girl of 13 years of age, in the employment of a confectioner named Hammond. The girl complained of being ill, and her mistress sent for Dr. Forde, who came and took her back to his shop for the purpose of giving her a remedy. It was alleged that in his shop he committed the offence. He afterwards called at the house, and on each occasion the girl fainted on seeing him, and got an hysterical fit. When finally on examination, she stated what had taken place. The girl, Ellen Kearns, was produced and examined by Mr. Waters, Q.C. She proceeded to detail the facts at length, but in a manner so different from her informations, that his Lordship stopped the case and retired for ten minutes to consider it. On his return into

court, Mr. Green, Q.C., said that, upon consultation with his colleagues, he thought it but just to withdraw from the prosecution. His Lordship directed an acquittal, and said that the story was evidently the offspring of the child's diseased imagination, and the prisoner left court without a stain on his character. Fortunately for the honor of the profession, these charges when investigated are generally found to be false, but this trial, as well as many others which have taken place, inculcate the necessity of extreme caution on the part of our brethren. Consultations of a delicate kind should never take place except in the presence of a third party. The reputation of a medical practitioner is like that of the wife of Cæsar—it must be "above suspicion."—*Medical Times and Gazette.*

DETROIT, June 30, 1869.

MY DEAR DOCTOR,—Agreeably to the following resolution of the Michigan State Medical Society, dated June 10th, 1869, viz. :—

"Resolved, That Dr. Henry F. Lyster, of Detroit, be appointed a committee of one to prepare a report on the operation of excision of the hip-joint, with especial reference to the statistical results, and that he be empowered to have blanks printed at the expense of the Society, to be sent to all surgeons who have recently performed the operation, in order that this report may embrace information that cannot be found in books and journals."

I transmit to you the accompanying blank, requesting you to report all cases of excision of the hip performed by you for morbus coxarius.

The committee will feel greatly indebted for a detailed description of each case operated upon, together with your opinion upon the value and advisability of the operation, and the stage, circumstances and conditions, &c. &c., in which it may be performed to the best advantage.

Full credit will be given in the published Transactions of the Society for any report you may see fit to make.

Very sincerely yours,  
HENRY F. LYSER, M.D., *Committee.*

The above circular is presumably addressed to every member of the medical profession; and we presume that every one who has had a case or cases of the kind alluded to, and who may see this, will reply to the following questions relative to such. We embody the points on which informa-

tion is sought from the blank table accompanying the circular sent us :—

No. of cases ; sex ; age ; side of body ; causes, and duration of disease ; condition at time of operation ; operation ; progress of case and result ; utility of limb ; causes of death, and duration of life in fatal cases ; date and place of operation ; operator and assistants ; remarks.

**INQUEST.**—The jury summoned by Coroner Thaxter to investigate the circumstances connected with the death of Thomas Norton, previously mentioned in the papers, have returned the following verdict :—

"That Thomas Norton came to his death about 2½ o'clock, A.M., August 20th, 1869, from the effects of a large and poisonous dose of laudanum administered to him under the supposition that it was tincture of rhubarb. And the jury further find that the fatal dose administered to deceased was purchased as and for tincture of rhubarb, at the apothecary store of David J. Sewell, No. 1257 Washington Street, and was dispensed by William J. Saville, employed there, who had been positively instructed by the proprietor not to sell or put up medicines, and who did sell in this instance two ounces of laudanum for the two ounces of tincture of rhubarb which was called for."—*Boston Daily Journal*.

**MANSLAUGHTER.**—William J. Saville, the clerk in David J. Sewell's drug store, who sold tincture of opium to Mr. Chas. S. Patten, for tincture of rhubarb, was arraigned before the Municipal Court in Boston, Aug. 30th, on the charge of manslaughter, in causing the death of Mr. Thomas Norton, of No. 5 Springer Court. The government called the same witnesses as appeared before Coroner Thaxter at the inquest on the 21th inst., and the same testimony was elicited, which was to the effect that Mr. Norton being quite unwell—troubled with the bowel complaint—his friend and employer, Mr. Charles S. Patten, went to the drug store of Mr. Sewell, at 1257 Washington Street, to procure some tincture of rhubarb. That he bought what he supposed to be rhubarb of the young clerk, Saville, took the preparation to the house of Mr. Norton, gave the same to his wife, who administered it as directed by the druggist, the same being one-half of a two ounce vial. The medicine proved to be tincture of opium, and the dose, being seven or eight drachms, caused the death of Mr. Norton in a few hours. After hearing all the evidence in the case, the

Court required the defendant to find sureties in \$1000 to await the action of the Grand Jury.—*Boston Daily Herald*.

**THE SUPPOSED POISONING BY A PHYSICIAN.—THE DOCTOR EXONERATED.**—An inquest was held yesterday by Coroner Keenan in the case of Mrs. Rosina Klett, of No. 424 East Ninth Street, whose death was supposed to have resulted from certain powders administered by Dr. Wm. Plumer, of No. 210 Avenue A.

Chas. Klett, the husband, deposed to the facts in the case as stated.

Wm. Plumer, of 210 Avenue A, deposed as follows :—*I am a homoeopathic physician, and was called in to attend Mrs. Klett on the 17th inst. ; she was then in a very feeble state, and had violent afterpains ; she complained of pain in the stomach, and continued in that condition until the time of her death ; her husband asked me for some powders to cause sleep ; on Tuesday he came to my house and I gave him four powders, each containing one-eighth of a grain of acetate of morphine ; I weighed it myself ; I ordered one powder first, and if she did not sleep to give her another powder after waiting a few hours ; I gave these powders to produce sleep ; deceased was in a fever and had cramps in the stomach ; I doubt now whether she had peritonitis or not ; I graduated in Germany.*

Drs. Wooster, Beach, Finnell, Clark and others, who had made the autopsy on the remains, deposed that they found inflammation of the womb and surrounding parts ; in their opinion death was caused by *pyæmia* from an abscess ; her condition should have been made out by an intelligent physician ; if she had severe pains morphine should have been given ; if not, that medicine would have been improper ; an eighth of a grain of morphine is not a homoeopathic dose.

This closed the testimony in the case, and the jury rendered a verdict of "death from *pyæmia*."—*New York Times*.

**ACKNOWLEDGMENT.**—*"Communicated for the Boston Medical and Surgical Journal."*—We received through the mail a few days ago, from Dr. Amos Sawyer, of Hillsboro', Illinois, a novel contribution in the shape of a *glove worm*. The donor, to whom we express our thanks, sent it, he says, thinking it might be a curiosity ; and it was. We suspect, however, that Dr. Sawyer kindly intended to add light to our editorial lucubrations !

## Medical Miscellany.

**CIRCULAR.**—The medical profession, and scholars generally, are aware of the ephemeral form in which most of the early American contributions to the literature of medicine were given to the world, and, indeed, in which many of the more recent are being published. This condition of much of our professional literature is deeply regretted by all, and particularly by those whose taste and research lead them to refer to this class of works, when the fact is made apparent that whole editions of tracts and books have entirely perished through neglect. With a view to provide against such a contingency, and preserve, for the benefit of the profession, in some accessible and central locality, copies of all home medical publications, the American Medical Association, at its annual meeting in May last, resolved to establish at Washington, D.C., a Library or Repository of American medical works, to which it is believed all the current medical literature of our country will be cheerfully, promptly and constantly contributed.

It is designed that this repository shall contain copies of every contribution by American physicians to the literature and science of medicine, from the earliest settlement of our country, no matter how or where published, including all the books, pamphlets, journals, and even unpublished manuscripts, that can be collected. \* \* \*

An appeal for contributions to this library is now made, personally and distinctly, to each and every American physician, medical publisher, and editor, to deposit copies of their works in this repository, where they will be carefully kept for reference and catalogued with the name of the donor.

We, the undersigned, members of the American Medical Association, having been selected to carry into effect, as far as practicable, the resolution of the Association to establish a Library, have now completed all the necessary arrangements for the reception and preservation of those books which may be sent to our care. Contributions of the class of works mentioned, are therefore respectfully and earnestly solicited from every source. Packages may be sent by mail or by Adams's express, to either of us, which will be promptly acknowledged on reception, and a record of titles kept. The library-mark of the Association will be pasted on the inside of the cover of each Volume, which will contain also the name of the donor. \* \* \*

We remain, respectfully,

ROBERT REYBURN, M.D.,

*Librarian.*

JOSEPH M. TONER, M.D.,

*Library Committee.*

WASHINGTON, D. C., Aug. 16, 1869.

Letters of inquiry, we are informed, may be addressed to Dr. Reyburn, at 120 F Street, or to Dr. Toner, 45 La. Avenue.

By accident, it was not stated in the JOURNAL of last week that the review of Dr. Bigelow's book was written from advance sheets. Booksellers will probably be supplied with the book within a week.

A CIRCULAR from the Southwestern Book and Publishing Co. announces "the discontinuance of the publication of the *St. Louis Medical Reporter* for the present," and states that unless new arrangements are soon made whereby the work can be furnished to subscribers without incurring so great a loss as the past has proved, the subscription money for the unexpired time paid for will be refunded.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11 A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

TO CORRESPONDENTS.—Communications accepted:—On the Treatment of Typhoid Fever by the Reconstituents—Pau as a Resort for Invalids.

MASSACHUSETTS MEDICAL SOCIETY.—We are requested to correct two errors of the press in the last issue of the *Medical Communications* of the Society. On page 114, in the list of Councilors for Berkshire County, the name of Dr. Louis Miller, of Stockbridge, should have been printed instead of Dr. J. Leland Miller, of Pittsfield; and on page 118, Dr. Andrew M. Smith, of Williamstown, should have been named as President of the Berkshire District Society, and not Dr. Abner M. Smith, of Pittsfield.

BOOKS AND PAMPHLETS RECEIVED.—The Jurisprudence of Medicine in its relations to the Law of Contracts, Torts and Evidence, &c. By John Ordronaux, LL.B., M.D. Philadelphia: T. & J. W. Johnson & Co. —A Text-Book of Practical Medicine, with particular reference to Physiology and Pathological Anatomy. By Dr. Felix von Niemeyer, Prof. in the University of Tübingen. Translated by George D. Humphreys, M.D., and Charles E. Hackley, M.D., New York. Vols. I. & II. From D. Appleton & Co., New York.—Electricity in its Relations to Practical Medicine. By Dr. Moritz Meyer. Translated, with Notes and Additions, by William A. Hammond, M.D., New York. From D. Appleton & Co., New York.—Carbolic Acid: Its Action and Uses. By Charles F. J. Lohbach, M.D., of Newark, N. J.—Puerperal Eclampsia. By C. C. F. Gay, M.D.—Feticide, or Criminal Abortion; a Lecture Introductory to the Course on Obstetrics and Diseases of Women and Children, University of Pennsylvania, Session 1859-40. New Edition. By Hugh L. Hodge, M.D.—Transactions of the Indiana State Medical Society at its Nineteenth Annual Session, held at Indianapolis, May 19 and 20, 1869.—The Illustrated Annual of Phrenology and Physiology for 1870. By S. R. Wells, Editor of the Phrenological Journal and Life Illustrated.

DEATHS IN BOSTON for the week ending August 28, 103. Males, 59—Females, 44.—Abscess, 1—accident, 4—disease of the bladder, 2—inflammation of the bowels, 1—disease of the brain, 3—inflammation of the brain, 3—cancer, 3—cholera infantum, 19—cholera morbus, 2—consumption, 13—convulsions, 5—debility, 2—diarrhea, 1—diphtheria, 1—dropsy of the brain, 4—drowned, 2—dysentery, 3—erysipelas, 1—scarlet fever, 2—typhoid fever, 2—disease of the heart, 4—infantile disease, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 1—marasmus, 3—measles, 1—old age, 1—paralysis, 1—premature birth, 1—teething, 1—ulcers, 1—unknown, 7—whooping cough, 4.

Under 5 years of age, 52—between 5 and 20 years, 5—between 20 and 40 years, 21—between 40 and 60 years, 10—above 60 years, 15. Born in the United States, 67—Ireland, 23—other places, 13.

## Original Communications.

## CONCERNING THE DIAGNOSIS OF LESIONS OF THE BASE OF THE BRAIN.

By S. G. WEBBER, M.D., Boston.

This paper is not intended as an exhaustive treatise upon the above subject, and no attempt will be made to show the diagnosis between different forms of cerebral lesion. So far as physiological symptoms are concerned, the nature of the lesion is unimportant, a fibrous tumor, or tubercle, hæmorrhage or softening, or even congestion, if occupying the same place and pressing equally on surrounding parts, will produce exactly the same physiological changes.

Lesions of the hemispheres or cerebellum are not considered, partly from the as yet unsatisfactory state of our knowledge concerning the physiology of those parts, and partly from the great length to which the paper would be continued.

What is said in regard to diagnosis will be applied primarily and principally to those cases where the amount of lesion is small. When the lesion is extensive the same reasoning will apply, extended and modified according to the case; yet in extensive injury of brain substance it becomes difficult to decide exactly how extensive the injury is; and in such cases diagnosis becomes less important, for they are usually quickly fatal. The class of cases in which the most benefit can be obtained are those where the injury is at first small; subsequently, by comparing the symptoms with those present at the commencement, the physician can decide whether there is extension of disease, or whether there is any prospect of improvement, perhaps recovery.

No attempt is made to give the credit of the different parts of this paper to the authors from whom the facts are taken, except the cases quoted. Clarke, Luys, Quain, Hirschfeldt and other anatomists; Longet, Vulpian, Brown-Séquard, Funke, Bernard and other physiologists have been consulted.

It is not necessary to give a complete review of those parts of anatomy which can

be found in any text book. Only so much as relates to the deep origin of the nerves, their anastomosis with each other, their character, whether motor or sensory, and the region to which they are distributed, is given.

The nomenclature of Sœmering, dividing the cranial nerves into twelve pairs, seems to be most advantageous for present purposes.

The first pair, olfactory, arise each by three roots, which can be seen on the base of the brain, around and on the locus perforatus anticus, spreading out fan-shaped. The fibres of the inner root decussate in front of the tuber cinereum, and are lost in a small mass of grey substance on each side of the septum lucidum. The middle root crosses the locus perforatus, turns upwards and inwards, decussates, and probably is lost in the olfactory ganglion. The external root does not decussate, it curves around the lower edge of the corpus striatum, and its fibres are lost in a nucleus of grey substance in the anterior part of the sphenoidal lobe, forming the olfactory ganglion. This ganglionic mass is connected by radiating fibres with the septum lucidum, the continuation of the grey substance of the cord. It is also connected through the tænia semicircularis with the anterior part of the optic thalamus.

The second pair, the optic nerves, are distributed solely to the retina. The optic nerves of the two sides are united at the commissure, and their fibres in part decussate. They then pass around the crura cerebri, at first are cylindrical, then becoming flattened, they pass along the border of the optic thalamus and divide into two roots, one of which terminates in the external corpus geniculatum, and the other in the internal corpus geniculatum. From these two ganglionic bodies fibres pass either to the middle nucleus of the optic thalamus, or to the corpora quadrigemina.

The third pair, oculorum motores communi, arise apparently from the inner border of the crura cerebri, immediately in front of the pons. Their fibres pass inwards, some are lost in the mass of cells in the

*locus niger* and some turn towards the median line to decussate with those coming from the opposite side: some pass through the crus to the floor of the fourth ventricle, and seem to be lost in a nucleus of cells in the immediate vicinity of the origin of the fourth nerve.

This nerve supplies the recti muscles of the eye, except the external, and the levator palpebrae. Fibres pass also through the ciliary ganglion to the iris.

The fourth nerve, *patheticus*, arises apparently from the upper part of the valve of Vieussens, below the corpora quadrigemina. Its fibres in part decussate across the roof of the fourth ventricle, and then are lost in a mass of highly pigmented cells in the floor of the fourth ventricle. Other fibres pass directly to the place of origin. Groups of nerve cells are found scattered among the bundles of fibres.

From its place of origin the fourth nerve winds around the crus cerebri, passes with the third through the sphenoidal fissure and supplies the superior oblique muscle of the eye.

The fifth nerve, *trifacial*, arises apparently from the side of the pons Varolii, between the middle and superior crura cerebelli, a little above the middle of the pons.

This nerve has two roots, a larger sensitive root, and a smaller motor root; the latter arises a little above the former.

These roots, after entering the pons, pass obliquely inwards and downwards, separating somewhat more one from the other, and finally turn downwards through the medulla, the sensitive fibres passing through the grey tubercle, which is the continuation of the posterior cornu, the motor fibres passing down anterior to and near the origin of the hypoglossal (Clarke). I have noticed that some of the fibres, especially of the motor tract, when they enter the pons, seem soon to turn upwards, but have not been able as yet to trace them far.

The Gasserian ganglion is in communication with filaments of the sympathetic nerve through the carotid plexus; the nasal branch furnishes the long root to the ciliary ganglion, and the long ciliary nerves to the globe of the eye; branches are also furnished to the facial and to the sphenopalatine, otic and submaxillary ganglia. The general distribution can be found in text books; it supplies sensitive nerves to most of the face and the cavities connected with the face; it supplies nerves of taste to the anterior two-thirds of the tongue; its motor branch is distributed to the muscles

of mastication, the temporal, pterygoids and the masseter, and to the buccinator, mylo-hyoid and the anterior belly of the digastric.

The sixth nerve, or *abducens*, arises from the lower edge of the pons at the upper border of the anterior pyramids. Its fibres then pass backwards in a waving line, and curving slightly outwards break up and are lost in the immediate vicinity of the fasciculus teres, the vertical portion of the seventh. Clarke has not been able to trace them either up or down the floor of the fourth ventricle. Its fibres are in connection with a part of a nucleus of cells, with the other part of which the seventh is connected.

After its exit from the pons the sixth nerve leaves the cranium through the sphenoidal fissure and is distributed to the external rectus muscle exclusively. It receives a few sympathetic fibres from the internal carotid plexus.

The seventh nerve, the *facial*, arises from the edge of a sulcus on the lower and outer border of the pons, between the middle and inferior peduncles of the cerebellum.

Its fibres in the medulla curve around near the edge of the restiform body to the floor of the fourth ventricle; some are there lost in a nucleus of cells, others plunge downwards, forming the fasciculus teres, and then turn forwards again, and are lost in a nucleus near the anterior part of the medulla. A third portion of fibres decussate with those of the opposite side.

This nerve at its origin is purely a motor nerve, and it becomes sensitive only after receiving anastomosing fibres from the fifth nerve. It is distributed to the muscles of the mouth, nose, ear, and to the orbicular muscles of the eye, to the muscles of the scalp, and to the platysma. It also furnishes filaments to the skin of the side and back of the head, to the ear and to the upper part of the neck.

The posterior auricular branch is connected with the great auricular nerve of the cervical plexus, and with the auricular branch of the pneumogastric. The temporofacial division is connected with branches of the fifth nerve. The cervico-facial division is connected with the great auricular nerve of the cervical plexus within the parotid gland. The facial and its branches are also in connection with divisions of the sympathetic.

Although the anastomoses of this nerve are so numerous, the physiology and pathology of the central nervous system is not thereby complicated, if it is borne in mind



that at its origin it is purely a motor nerve, and that most of its connections are with the sensitive branches of the fifth nerve, its anastomoses with the great auricular of the cervical plexus being comparatively unimportant.

The eighth, or auditory nerve, arises along side of the seventh a little to the outside. Its fibres pass around and through the medulla to the auditory nucleus in the floor of the fourth ventricle near its lower part.

It is a nerve of special sense, hearing, and is distributed exclusively to the inner ear.

The ninth, or glosso-pharyngeal nerve, arises from the restiform body, near the sulcus between that and the olivary body. Its deep origin will be described in connection with the tenth nerve.

The glosso-pharyngeal leaves the cranium by the jugular foramen; it swells into two ganglionic enlargements, the jugular and the petrous. It is distributed to the membrane lining the tympanum and the Eustachian tube, and also to the mucous membrane of the pharynx and posterior third of the tongue. It receives branches from the pneumogastric and sympathetic. It also sends a filament to a few of the muscles of the pharynx and of the base of the tongue.

At its origin, this nerve is sensitive only. It furnishes the posterior third of the tongue and the pharynx with the sense of taste, and also supplies the common sensitive filaments to the mucous membrane of the parts to which it is distributed.

The tenth, or pneumogastric nerve, arises from the restiform body in a line with and below the ninth nerve. It passes into the medulla, and terminates in a nucleus of cells just on the side of and behind the central canal for the lower roots, on the floor of the fourth ventricle for the upper roots, and a little more anterior, away from the floor of that ventricle, for the most superior roots. Its nucleus blends with the nucleus of the spinal accessory below, and with that of the glosso-pharyngeal above; the latter, being a continuation of the nucleus of the tenth, occupies relatively nearly the same position, but is a little deeper seated towards the anterior part of the medulla, and is overlapped by the nucleus of the auditory nerve.

In its passage out of the skull, the pneumogastric passes through the jugular foramen, in which is the ganglion of the root. Lower down, after it passes out of the foramen, is the ganglion of the trunk.

At its origin, the pneumogastric is a sensitive nerve; it becomes a mixed nerve beyond the ganglion of the root, by virtue of the filaments which it receives from the facial and spinal accessory. At the lower ganglion, fibres are also received from the hypoglossal and spinal nerves. It is also connected with the sympathetic.

The pneumogastric gives off branches in its course down the neck: the pharyngeal, which is partly muscular, and partly distributed to the mucous membrane of the pharynx; the superior laryngeal, which supplies a few muscles, but is distributed mostly to the mucous membrane of the larynx, the vocal cords, the epiglottis and the base of the tongue; the recurrent laryngeal supplies principally the muscles of the larynx, and gives but few twigs to the mucous membrane. The pneumogastric also supplies branches to the lungs, heart, esophagus and stomach, which are intimately connected with the sympathetic, forming complicated plexuses.

The eleventh, or spinal accessory nerve, arises from the lower part of the restiform body and from the lateral column of the cord, as low as the fifth or sixth, rarely seventh cervical nerve. The upper roots of the nerve can be traced to a nucleus below, and continuous with, the nucleus of the tenth nerve.

The lower roots in part curve sharply around after entering the cord, and pass into the anterior cornu; a part are lost in the tractus intermedio lateralis, and a part decussate with their fellows from the opposite side.

The nerve passes up the cord and leaves the skull with the pneumogastric. In the foramen it gives a branch to the ganglion of the root of the pneumogastric; it is also connected with the same nerve by other branches beyond the ganglion of the trunk. The rest of the nerve is distributed to the sterno-mastoid and trapezius, anastomosing with branches of the third and fourth cervical.

The spinal accessory is exclusively motor at its origin.

The twelfth, or hypoglossal nerve, arises by several filaments from the sulcus between the olivary body and the anterior pyramids. Its fibres pass through the medulla from forwards backwards, curving inwards, and can be traced to a nucleus of cells which lie in front of the central canal for the lower roots, and near the median furrow of the fourth ventricle for the upper roots. Some of its fibres can be seen to decussate.

It emerges from the skull by the anterior condyloid foramen. It is connected with the first and second cervical, with the pneumogastric, and with the sympathetic, and by the descendens noni with the second and third cervical. The descendens noni, usually regarded as a branch of this nerve, and which supplies most of the muscles of the neck, is thought by some to be derived from the cervical nerves, and only connected by juxtaposition with the twelfth nerve.

The hypoglossal supplies principally the muscles of the tongue with motor filaments.

In this account of the origin of several of the cranial nerves, mention was made of fibres which decussate with those from the opposite side without entering the nuclei of origin of the nerves. Later investigations with other means of preparation (using the chloride of gold to color the fibres) show that still other nerves terminate in a similar way. We are then, perhaps, justified in concluding that all the cranial nerves, in addition to the fibres which pass directly to a nucleus of cells, contain also fibres which decussate before entering a nucleus.

Facts in pathology prove that all the fibres which finally reach the sensorium decussate, and all impressions received in the brain, of which we are conscious, are received on the side opposite to that on which they originate, and all impulses of the will start from the side opposite to that in which they terminate in motion.

In studying the significance of symptoms with relation to the portion of the base of the brain in which the lesion is situated, it is found, as would be expected, that the symptoms vary with the height at which the lesion occurs. The same is true in lesion of the spinal cord; but the more complicated structure of the base of the brain renders it less easy to recognize the location of the lesion without an accurate knowledge of the anatomy and physiology of the parts.

In considering the significance of symptoms, it must be remembered that injury to a nerve in any part of its tract before it enters the cranium, will give rise to the same or similar symptoms as injury to its intracranial tract before it decussates; but when nerves have communicated by anastomosis, injury to the extra-cranial part of one may produce, in addition to the symptoms referable to that nerve, others which show that the nerve with which it anastomoses is injured. Such cases may render the diagnosis somewhat difficult, especially in cases

of pressure on nerves in the cranial foramina; but if it is borne in mind that the injury is much more uniformly limited to the course of one or two nerves, and the rest of the system is unaffected, that there are no symptoms of general nervous disturbance, as would arise from shock, and that the trouble is usually of slow growth, appearing gradually, such cases may usually be eliminated. Yet there are occasionally cases in which it is exceedingly difficult or impossible to decide satisfactorily concerning the nature and seat of the lesion. Cases of pressure upon nerves after leaving the brain substance and before entering their foramina, come properly under notice in this paper.

Brown-Séquard has shown that the sensitive fibres (except those of muscular sense) decussate in the cord soon after entering, while the motor fibres and the fibres for muscular sense decussate in the anterior pyramids. Then in lesion confined to one side, above the place of decussation of the anterior pyramids, there will be loss of sensation and motion, both on the side opposite the lesion in the trunk and limbs. In the face, the paralysis may be on the same side with the lesion or on the opposite side, according to the seat of the lesion.

Commencing with the study of the physiology of the lower portion of the tract to be considered, we shall find but few cases where there was traumatic injury of the medulla at the origin of the pneumogastric and spinal accessory, in which the patient lived long enough for observation of the symptoms. These two nerves and the portion of the medulla whence they arise are so essential to life, as they preside over the respiration and the circulation, that the shock of the injury, by its irritating influence, or the resulting paralysis, proves quickly fatal. However, the physiology of these parts explains phenomena which are seen in some diseased conditions.

The lower fibres of the spinal accessory supply in part the trapezius and the sternomastoid. When these fibres are injured, the action of these muscles, deprived of part of their nervous influence, becomes more feeble; hence the acts in which they are essential lose part of their force, as the act of coughing, sneezing, vomiting, forced respiration, great muscular exertion with the arms, as lifting heavy weights. Hence in such a case running becomes impossible, except for a short time, as it is not possible to fill the chest sufficiently to keep up the exertion.

The upper fibres, called the internal roots,

which are united with the pneumogastric nerve, furnish to that a portion of its motor fibres. These are supplied to the organs of speech and deglutition. In paralysis of this part of the spinal accessory, the muscles which close the glottis and approximate the vocal cords are paralyzed, and if both sides are affected the voice is lost.

The pharyngeal muscles, which assist in deglutition, are in part innervated by fibres from the spinal accessory; hence a part of their nervous influence is lost in lesion of that nerve, and hence there is delay in accomplishing the act of deglutition, and there is, therefore, more danger lest a portion of the food should enter the larynx.

Paralysis of the spinal accessory, in cases of glosso-laryngeal paralysis, will, then, explain some of the symptoms found in that affection—the slow and difficult deglutition, with occasionally choking, and the necessity of feeding on liquids or soft solids, or of dividing the food very minutely; also may be explained the loss or diminution of the power of the voice which is sometimes observed; not the inability to articulate certain letters, which depends on paralysis of the hypoglossal.

The pneumogastric is exclusively sensitive, and is the nerve through which, by reflex action, many of the acts and functions of important organs are accomplished. It is also essential to the continuance of respiration and of the heart's action. Though the pneumogastric of one side may be sufficient to sustain the reactions necessary for the continuance of life, lesion of both would prove fatal.

The hypoglossal, though in some animals having a posterior sensitive filament furnished with a ganglion, is generally in man exclusively motor. Lesion at its origin produces only motor paralysis of the tongue. Hereby is explained another of the symptoms found in glosso-laryngeal paralysis—the difficulty of moving food in the mouth, the flow of saliva from between the lips, the difficulty or impossibility of pronouncing certain letters, requiring the application of the tongue to the palate. If a portion of the fifth and seventh nerves be affected at the same time, there may be also regurgitation of food through the nostrils from paralysis of the tensor palati, and inability to use the orbicularis oris. It will be easy, therefore, to explain also the differences in the symptoms in this disease in different cases, or in the same case at different periods, as the extent of central lesion

varies, and one or more nuclei of cells is implicated.

In cases of one-sided lesion before the hypoglossal has decussated there will be paralysis of the tongue on the side opposite to the side on which the paralysis occurs in the limbs. The tongue will then be inclined to the side on which the limbs are not paralyzed when it is protruded. If there is no other symptom of paralysis in the face, except the protrusion of the tongue to one side, it follows that the lesion cannot be higher than the origin of the hypoglossal. As, however, the fifth nerve sends down fibres through the medulla as low as the origin of the twelfth nerve, and as the facial also turns down after reaching the floor of the fourth ventricle, it is rarely that so uncomplicated a case as lesion of the hypoglossal without symptoms involving the others can be found.

When both hypoglossals are injured the tongue of course remains motionless in the mouth, or if the injury is only partial it can perhaps be partly protruded.

It has long been known that irritation of the floor of the fourth ventricle will cause diabetes. This fact in the physiology of that part of the medulla leads to the supposition, that the lesion in the following case was central.

*CASE I.—Paralysis of the Tongue, followed by Sloughing. Sugar in the Urine. Paralysis of Spinal Accessory.*—A gentleman, æt. 78, had been under treatment for what seemed to be a neuralgic affection in the occipital region. He suddenly lost the power of articulating, especially the lingual consonants; the labials and vowels he managed very well. There was no facial paralysis. The tongue could be protruded steadily, but slowly and only to a short distance beyond the teeth, inclining to the right. There was difficulty in swallowing both solids and liquids; the attempt to swallow solids seemed to agitate him. The act was performed with manifest effort, the face being distorted in the effort as it is when a person with a sore throat attempts to swallow. Still the throat was not sore, and there was nothing abnormal about the fauces. Pain extended from the nucha towards the occiput. He became weak and had a cough. He was unable to clear his throat of the mucus he coughed up; it had to be removed mechanically. The saliva ran from his mouth. Pulse from 98 to 100, weak and compressible. The right half of the tongue sloughed off.

His urine at the commencement of the attack was free from albumen. It gave evidence of the presence of sugar. [E. Ballard, *Medical Times and Gazette*, March 20, 1869, p. 296.]

There was here paralysis of the tongue on one side; but it seems from the difficulty in swallowing as though the muscles of deglutition were affected also, the spinal accessory; and the rapid pulse would rather favor the same supposition. The occurrence of diabetes also points to the medulla as the seat of lesion. A circumscribed congestion of the nucleus of the spinal accessory and hypoglossal, and perhaps of the pneumogastric on one side, would account for all the symptoms mentioned.

The glosso-pharyngeal is a nerve of special sense (taste) as well as of general sensation. Its injury would be betrayed by loss of taste in the posterior third of the tongue, and by loss of sensation there and in the pharynx. Probably this is but rarely tested. It has been said that bitter substances are more especially tasted by the posterior third of the tongue, rather than by the anterior portion.

The auditory nerve may be injured at its central origin, and then there is loss of hearing on the same side with the injury, if it is before the decussation of its fibres; or on the opposite side if it is after the decussation. Actually this symptom is not often mentioned except in connection with other more striking symptoms.

The seventh or facial nerve is a nerve of motion, most of the muscles of the face are innervated by it, and when one nerve is paralyzed the balance between the natural tonic contraction of the two sides is destroyed, and the face is pulled over to the healthy side. A spasm of the paralyzed side, which is sometimes seen, would complicate the case, and render diagnosis less easy, but unless the spasm is very strong it would be sufficient to tell the patient to move his mouth to one side and the other in order to decide on which side the paralysis really is. Also the spasm would probably pass away with the progress of the case.

The disfigurement of the face from this paralysis is so marked that it is noticed even by non-professional persons, and has been more frequently described than any others. When, however, both nerves are paralyzed, the affection might pass unnoticed, as the features are then in equilibrium. There is, then, entire want of control

over the muscles, and the patient laughs and speaks without moving his muscles.

When one only of the facial nerves is affected before the decussation, the paralysis is on the same side with the injury, and opposite to the side on which the limbs are affected; hence arises the so-called "alternate paralysis." If this is found, and sensation remains in the face, which is not likely to be the case, and if the muscles of the eye have not lost their power of motion, it is certain that the injury is not above the lower border of the pons. The fifth nerve is usually also affected, and there is loss of sensation in the face on the same side with the loss of motion. But as the fibres of the fifth and seventh do not decussate at the same place, there may be some variation in the grouping of the symptoms; but if none of the nerves supplying the eyes are affected, the lesion must be at the lower part of the pons or upper part of the medulla, and if the tongue is paralyzed on the same side with the limbs the location of the injury is restricted within still narrower limits, between the decussation of the twelfth and the border of the pons.

Brown-Séquard shows by comparing cases that the motor fibres from the limbs and body pass up the anterior part of the pons chiefly, and the sensory fibres pass up through the centre of the pons. If this is borne in mind, the seat of the lesion may be still more narrowly marked out.

The following is a summary of one of the cases from which he draws this conclusion: It is also of interest for our present purpose, as the seventh nerve was affected without the participation of the fifth, and the twelfth was affected after its decussation; also the lesion was well defined.

*CASE II.—Paralysis of Motion in Limbs on left and Face on right; Hyperæsthesia in left Limbs; Preservation of Sensation everywhere; Tongue Paralyzed on the left; finally Rigidity of Paralyzed Limbs. Clot in right Side of Pons near Anterior Surface.*—On March 18, 1856, C. entered the Riboisière. He had previously had two attacks of right hemiplegia without loss of consciousness. On the morning of the 18th of March he arose as usual, and while preparing to go out fell, paralyzed on the left, without loss of consciousness.

When seen by M. Senac in the evening, the skin was warm and moist on the trunk and face, cold on the limbs. The conjunctivæ were injected, the pupils largely and equally dilated. The pulse was 90, small

and irregular. There was complete paralysis of motion in the left arm and leg. The face was drawn to the left, paralyzed on the right; the motion of the lower lip was free; the tongue was easily protruded, but inclined to the left. He spoke very indistinctly. Sensibility was perfect over the whole body without exception. There was no pain in the head or the paralyzed parts. Respiration was slow and noisy. Deglutition was difficult; there was no vomiting. Subsequently there were pains in the paralyzed limbs, and they afterwards became spasmodically contracted.

At the *post-mortem* examination there was found a clot in the pons extending into the middle cerebellar peduncle on the right side; it had the size of an almond; in front it was separated from the anterior surface only by a thin layer of transverse fibres; behind and above it had destroyed the nervous tissue to the level of the fibres which are the continuation in the pons, of the anterior pyramids of the medulla. The column on the right side was itself deeply excavated and destroyed. The clot seemed to have destroyed the nervous fibres in the pons; but to have only separated those of the middle peduncle from each other.—(Senac in *Gaz. Hebdomadaire de Med.*, vol. 3, 1856, No. 46, quoted by B. S. in *Journal de Physiol. de l'Homme et des Animaux*, vol. 1, 1858, p. 756.)

There is one symptom in relation to the eye not yet mentioned. In cases of injury to the cord in the cervical region it is found that the pupillary fibres of the sympathetic are involved, and also there is increase of temperature in the face and limbs on the same side with the injury. The same phenomena are found in many cases of injury to the lower part of the pons and the upper part of the medulla. The pupil is contracted on the side of the injury. In no case have I been able to trace these fibres of the sympathetic higher than the middle or upper third of the pons. The vaso-motor fibres which regulate the contraction of the bloodvessels, decussate and are found in the hemispheres.

The symptoms in the following case are such as are usually found, though it is not clear whether there was anæsthesia on the side of the face which was paralyzed.

CASE III.—*Alternate Paralysis. Clot in Pons.*—A woman, æt. 34, fell down. On admission to hospital she had right hemiplegia with anæsthesia of the paralyzed parts. There was paralysis of the left side of the face. The right eye could be closed;

the will was powerless over the left eye. Reflex action in the paralyzed lower extremities was readily excited. The circulation was feeble. Tongue soon became dried and furred. Consciousness was maintained and intelligence till two or three hours before death, five days after the attack.

A clot the size of a filbert was found in the pons; it had a jagged, shreddy, slightly soft boundary. Section in the mesian line passed nearly through the centre of the clot which had ruptured into the fourth ventricle.—(*Trans. Path. Soc.*, vol. 4, p. 28.)

When the fifth nerve is affected, there is loss of sensation in the face and parts supplied by its sensitive fibres, and loss of power in the muscles of mastication, so that the bite is not so forcible. (This last symptom is not often noticed.) Certain lesions of nutrition have been noticed when section of the fifth has been performed in animals, as opacity and finally ulceration of the cornea, disturbance of nutrition resulting in ulceration of the mucous membrane of the nose and mouth. The testimony in regard to the occurrence of these lesions of nutrition is so conflicting that it is not easy to decide in regard to its value. It is not the present purpose, however, to reconcile these differences, but only to state facts in physiology which have a bearing upon diagnosis; and it is certain that under some conditions, after section of the fifth nerve, before it swells into the Gasserian ganglion, there follows an opacity of the cornea and of the other transparent structures of the eye, ending in ulceration of the cornea and perforation. There is also ulceration found on the above-mentioned mucous surfaces. With this disturbance of the nutrition there is loss of sight and of smell. There would probably be no necessity for such lesion to confirm a diagnosis, but if it should occur, the above fact would explain the occurrence. I have seen the records of several cases in which it occurred.

The fifth nerve also furnishes the sense of taste to the anterior two thirds of the tongue.

The chorda tympani, which influences the secretion of the submaxillary gland, is derived from the seventh.

The fifth may be paralyzed on the same side as the lesion, opposite to the side of paralysis of the limbs, and the seventh may be entirely unaffected, in which case the lesion is confined to a small portion of the upper part of the pons, through which the fifth nerve runs, or it may be implicated

outside the pons by pressure of a tumor.

The following case is an example where the fifth nerve was the only cranial nerve affected.

**CASE IV.—Convulsions in left Limbs. Pain on right side of Face. Paralysis of Motion in left Limbs; of Sensation in right side of Face. No loss of Motion in Face. Tumors in right half of Pons.**—A boy, aged 7, affected with chronic hydrocephalus and tuberculous, was attacked, six months before death, with convulsions in left arm and leg, pain in right side of face, with vertigo; later, motor paralysis in the limbs of the left side, anæsthesia in the right half of the face. Consciousness was not affected. The pupils were contracted, especially the left. Paroxysms of general shaking occurred. Four weeks before death, there was rigid contraction of the paralyzed limbs. Death occurred, with symptoms of tubercular meningitis. There was no facial paralysis of motion.

At the autopsy were found numerous tubercular granulations in the pia mater along the fissure of Sylvius. On the upper surface of the cerebellum were many granulations. The right half of the pons was larger than the left. A transverse incision between the roots of the fifth nerve disclosed a round tubercle half an inch in diameter, situated at the lower or anterior portion of the right half of the pons, commencing about a line from the lower periphery, near the origin of the right fifth nerve. The nerve-substance was softened around the tumor from half a line to a line towards the middle line, but did not quite reach the centre. The fibres of the fifth nerve were thinner on the right side than on the left, and contained much fat and granules.—(H. Weber, *Med.-Chir. Trans.*, vol. 44, p. 157.)

When the sixth nerve is affected there will be internal strabismus on the same side, if injured before reaching the place of decussation. After decussation, however, there may not be strabismus, as probably the third nerve would be affected also, and the eye would be immovable. I remember no case where the sixth was affected on one side and the third on the other, though such a case is, perhaps, possible. Either the sixth alone is affected, or the third alone, or both are affected on the same side in those cases which I have noticed.

If the fourth nerve or its origin is affected, there is inability to rotate the eye from outwards, upwards and inwards. Paralysis of this nerve is seldom recognized.

In the following case several nerves were affected on the same side. Where such is the case, the diagnosis of pressure may be made with some certainty, for we have seen already that the hypoglossal crosses soon after entering the medulla, and probably the spinal accessory does also.

**CASE V.—Loss of Power in right Limbs. Paralysis of left Fifth, Sixth, Seventh, Ninth, Eleventh and Twelfth Nerves; Diminution of Sensation in right Limbs; Tumor on left Side of Pons Pressing on Nerves.**—R. M., aged 6 years 7 months, fell and struck his head violently on the ground, receiving a cut over the right frontal eminence. He had never had fits, had always been healthy. Headache was felt subsequently and persisted. In taking food he began to use the left hand, and began to drag the right leg, and to allow his head to fall over to the right side. The power of the right side continued to decrease. He did not vomit. When admitted to the hospital there was no tenderness over the frontal bone. He generally sat up with his head leaning forward, or remained semi-recumbent. When his head was raised it fell back, which seemed to cause pain. There was no strabismus, the motions of both eyes were equal and regular. The left eye could be fully opened, but could not be so firmly or completely closed as natural. Both pupils were equally dilated, and contracted readily under light. There was complete paresis of right arm and leg, and sensation of the right side was a little impaired. There was paralysis of the left side of the face. Sensation of the left side of the face was considerably impaired. The left conjunctiva was almost completely insensible. The tongue was not protruded beyond the teeth. Intelligence seemed impaired, but he had lost the power of speech.

A few days before death a slight convergent squint with the left eye was noticed; it could not be turned outwards.

There was no reflex action in the right arm, but on pinching the right toe it was withdrawn.

**Post mortem.**—A lobulated tumor was found growing from the left side of the lower surface of the pons Varolii and from the left side of the medulla oblongata. The largest lobe of the tumor, of the shape of a large almond, and measuring  $1\frac{1}{4}$  inch in length by  $\frac{3}{4}$  inch in breadth, was placed obliquely; its apex reached to the basilar artery about the point of junction of the posterior with the two anterior thirds of the pons, and it extended backwards to the cerebellum; it

lay in a depression in the left side of the pons (which was much compressed) on the crus cerebelli and on the anterior part of the left lobe of the cerebellum. The remainder of the tumor, more irregular in form, consisting of several small lobules, grew from the back of the pons and from the upper part of the medulla oblongata. The medulla was somewhat twisted, the left side being pushed back and the right side being tilted a little forwards. The pons was larger and broader than natural, as was also the medulla oblongata, evidently in consequence of a portion of the tumor occupying the interior. On the right the nerves were not affected. On the left the first, second, third and fourth were not interfered with. The fifth was compressed between the tumor and crus cerebelli and much flattened; the sixth was concealed at its origin, lying between the tumor and pons; the seventh and eighth were compressed; some of the upper roots of the ninth were compressed.

In this account the nerves are evidently divided into nine pairs instead of twelve. The paralysis of the left spinal accessory is seen in the falling of the head to the right, owing to the superior power of the sternomastoid and trapezius on that side, and also in the loss of speech. The impairment of the hypoglossal was seen in the inability to protrude the tongue beyond the teeth, and perhaps both nerves were involved. The sixth nerve was not compressed till shortly before death.

When the seat of lesion is so far forward as to involve the third nerve, or even before that, when only the anterior part of the pons is affected, the facial paralysis will be on the same side with that of the limbs. If there is such a paralysis and the third nerve is not affected, either the lesion is in the crus cerebri outside of the tract of the third nerve, or it is in the anterior part of the pons above the decussation of both the seventh and fifth.

As the third nerve supplies not only most of the muscles of the eye and the levator palpebræ, but also the constricting muscles of the iris, when it is injured alone, there will be external strabismus and ptosis, and the pupil will be widely dilated. If the sixth nerve is also affected the fourth would probably not escape and the eye would remain fixed; there would be ptosis and dilated pupil. Differences in the size of the pupils may occur in connection with various lesions not here mentioned. In such cases the alteration may be due to reflex action or to implication of the optic nerves or centres.

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Other symptoms will then probably assist to a correct diagnosis.

The following case is one in which the lesion was in the course of the third nerve in the crus; it is one of the most valuable as showing how accurate a diagnosis may be made in some cases, especially if all the important symptoms are noted.

CASE VI.—*Loss of Consciousness; Paralysis of Third Nerve on left; of the right side of Face and Body; Sensation diminished on right; Pupils dilated; Temperature elevated on right; Clot in left Crus Cerebri.*—C. L., æt. 52, felt giddy, and, on trying to walk, fell on the right side. He seemed unconscious and unable to speak, but soon recovered and spoke distinctly.

There was complete paralysis of the right side from the face to the toes, ptosis of the left upper eyelid and squinting. The left eye could not be moved, except outwards and round its own axis from outwards upwards, but not downwards. There was, on the left side, paralysis of the third nerve, but not of the fourth and sixth. Both pupils were rather wide; the left, however, much wider than the right. Both contracted imperfectly under the influence of light; the left much more so than the right.

There was diminished sensibility on the right. The paralyzed limbs seemed warmer to the patient, but to the hand there was no difference between the right and left sides. There was obstinate constipation. Micturition was unaffected.

Three days later, it was reported that there was scarcely any improvement. The temperature (by thermometer) was found to be 0.5° C. (0.9° F.), higher on the right than on the left in the axilla and in the bend of the elbow. The left pupil was about three times as wide as the right. The diameter of the latter was normal, or even slightly narrower than usual; the contraction of the left pupil was less perfect than that of the right. He improved somewhat, especially in regard to sensation, and the temperature became equal in both sides. He then had an attack of pleuro-pneumonia, and died.

*Post mortem*, thirty-four hours after death. The cranium, dura mater and arachnoid membranes were normal. The subarachnoid serosity was slightly increased in quantity; it occupied the intergyral spaces, and scarcely raised the arachnoid from the surface of the convolutions. The pia mater contained a moderate quantity of this fluid

in its meshes, and was easily separated from the brain.

In examining the base of the brain, the basilar artery was found to be rather rigid and to contain several atheromatous spots; and a similar condition was met with in the cerebral portion of the internal carotid, and also in the middle and posterior cerebral arteries of the left side.

The left crus cerebri looked slightly fuller than the right, the color being, however, scarcely different; the left third nerve was just perceptibly pushed towards the right. In making a horizontal section through the centre of the lower part of the crus, an oblong clot of blood was discovered in its internal half, which was about 6 inch long, about 25 inch broad and almost as deep; it was situated very close to the internal and inferior surface, being separated from it by only a thin layer of nerve-substance; its commencement was immediately in front of the pons. The blood was rather dark, and less fluid than a newly formed clot. The surrounding tissue was tinged yellow to the depth of about one fifteenth of an inch, and more dense than the remainder of the substance of the crus. The third nerve of the two sides looked alike. Both optic nerves looked natural.

Under the microscope, the left third nerve contained many oil globules, granules and granular corpuscles; the nerve-fibres were scanty and broken down.—(H. Weber, *Trans. Med.-Chir. Society*, vol. 4, 1863, p. 122.)

It may be worth while to notice that the sensation was less impaired than motion, showing that the motor and sensory fibres are separated from each other in their passage through the crus cerebri, the motor fibres lying more to the inner and anterior or inferior side. It will be noticed, too, that the caloric fibres decussate and pass through the left crus cerebri for the right limbs.

It will be well to notice one or two sources of error in diagnosis. One is to be found in the fact that pressure or irritation exerted on the middle crus cerebelli, or the insertion of the trigeminal nerve, gives rise to paralysis on the same side with the tumor. Brown-Séquard first pointed this out, and offered the explanation that the paralysis is produced in such cases by a reflex influence. It can be exerted only while the nerve fibres are intact; when disorganization takes place the paralysis ceases, or it may be transferred to the opposite side.

He also states that the cerebellum can be the starting point of such a paralysis.

A case of this nature is given by Dr. Brown-Séquard in his *Journal de la Physiologie*, vol. i. p. 531. He says also he has found thirteen other cases of this kind of paralysis recorded. He does not state clearly in what way it may be diagnosed during life. He mentions, however, that in all the cases the paralysis is incomplete, as is found in cases of reflex paralysis arising from disease in other organs; there was anesthesia in only one case, and there were frequent fits of vertigo. The fact mentioned above, that when the destruction of the peduncle is accomplished the direct paralysis has disappeared or has been replaced by paralysis of the opposite side, would also assist in the diagnosis at a later stage. Another means of diagnosis may be found, perhaps, when the eyesight is affected, which may also occur by reflex influence from the same parts, and sometimes the sense of odor and hearing is lost, while there are no well-marked symptoms, other than these, to show that the lesion is in front of the pons. Also convulsions are more frequent when the lesion is in these parts.

The following case illustrates this species of paralysis.

CASE VII.—*Paralysis of left Side of Face and of left Limbs; Loss of Eyesight; Intelligence Preserved; no Loss of Speech; Convulsive Fits and Death; Aneurism Pressing on middle Cerebellar Peduncle and Fifth Nerve.*—Mrs. S., æt. 46, had always enjoyed good health till 1848, then she had pain at the front and vertex of her head, with dimness of sight which was worse on stooping; the pain was referred to the back of the eyes. Occasionally she would lose sight for a few minutes, the defect of vision "beginning at upper part of the eyes," the upper part of any object becoming invisible while the lower part was still seen. Both eyes seemed the same. She was also subject to feelings of stupidity and heaviness, which increased from the first. She had had several epileptic seizures. About one year from the commencement of her illness she became blind of both eyes.

In December, 1851, her mouth was drawn to the right side, the left side of the face and forehead being paralyzed. The pupils of both eyes were large, but equal in size, regular in outline, not influenced by light. There was no ptosis of either upper lid. There was great deafness in left ear; there had never been any discharge from the ear.



The tongue protruded straight. There was want of power in properly blowing the nose, and sense of smell was lost on the left side; taste was unaffected. She was very intelligent; there was no loss of speech. Memory of recent events was not good. There was loss of power, not complete, down whole left side, and great increase of sensibility of the skin covering the left side of the face and head. There was pain also in the back, but none in the abdomen. Micturition at all times was difficult.

In March, 1852, she perceived flashes in the right eye at times, and its pupil was larger than the left. There was a twitching of the left arm at times, which became painful when laid upon in bed, but the paresis was less and the hyperæsthesia of the head and face less.

April, there were various abnormal sensations and sounds in her head.

September, there were twitchings and contractions of the muscles at the right side of the neck and shoulder, and stiffness of the left side of the neck and lower jaw. September, 1856, a violent epileptic attack, the right side being tolerably quiet; the left arm was much convulsed, and left lids were continually winking. The right eye was kept open, and the pupils of both eyes were dilated; both eyeballs were rolling. She died immediately after.

At the *post mortem* there was found an aneurism of about the size of a small nutmeg connected with the left anterior cerebellar artery; it lay on the surface of the left middle crus cerebelli, and indented very slightly indeed the pons and the left lobe of the cerebellum. The apparent root of the fifth nerve was pressed on, and the seventh nerve was greatly implicated and stretched. The optic nerves, commissures and tracts were very dwindled and softened, and under the microscope with the seventh nerve showed degeneration.—(J. W. Ogle, *Med. Chir. Trans.*, vol. 42, p. 403.)

Again, difficulty in deciding about the seat of lesion may be found where there is an extensive destruction of cerebral substance; even if only one side is implicated, the shock may be sufficient to destroy consciousness and abolish the power of the will. Then if the lesion is very extensive the patient may die before recovering from the shock, and much less lesion may be found than was expected, or it may be very differently situated. If, however, the patient lives long enough the diagnosis can be corrected.

Or there may be a slight lesion in the hemispheres which only destroys a portion of the voluntary control over the muscles, and then the base of the brain or the cord may be suspected. In such cases a fuller observation of the symptoms and of the history of the case may help to a correct diagnosis. Many symptoms which should occur in injury to the base of the brain will be wanting.

The cases given above have all been those in which an autopsy confirmed the diagnosis; the purpose has been merely to illustrate the subject. Many more cases could have been related equally as applicable with those given, but this paper would have been too long. Doubtless, too, there are some things omitted which would be valuable and interesting, but the intention has been to give all that is really necessary for forming a correct diagnosis.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, SEPTEMBER 9, 1869.

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### AMERICAN vs. EUROPEAN MEDICAL SCIENCE.

SOME little time since the *Medical Record* gave an analysis of the relation of American to European Medical Science—to the disadvantage of the former. In the issue of that Journal for June 15th, Prof. S. D. Gross, of Philadelphia, replies, while the editor rejoins in the leading article. Some of the points under discussion challenge attention, particularly as the debate has attracted notice abroad, where it is liable to be put to a bad use by those who like to ridicule and inveigh against matters American. It has, however, we desire to say, been taken in hand by the *London Medical Times and Gazette*, in a most courteous and even kindly spirit, and been treated by that invaluable Journal in a remarkably discriminating manner. The discussion between the *Record* and Prof. Gross is also conducted in terms of mutual respect and good will. Its purport may be learned from the editorial rejoinder, which first deals with the points of agreement, and then takes up those upon which there is difference of opinion. We make some quotations.

"We are happy to know," says the *Record*, "that in many of the essential features

of our editorial, Prof. Gross and ourselves entirely agree, and that we can endorse many of his statements in stronger language than he has seen fit to use, and can sustain them by a larger array of facts than he has taken the pains to present.

"We agree that the profession in America has been inclined to discourage rather than encourage original thought among its members. In the plain language of Prof. Gross, we are "toadies." In science, we ask what says the *Lancet*? just as in politics, we ask what says the *London Times*? The leading and most successful men in the profession of America to-day, certainly in all our large cities, are not our most original thinkers, but our heaviest importers from Europe.

"Again we repeat that, until quite recently, no physician in this country could advance a radically original thought in science without risking, not only his reputation, but even his comfort. Even now that spirit still lingers. Even now the reformers of American Medical Science are met by the stunning question—*What does Europe say?* Even now, many of our leading writers dare not form or express a favorable opinion of an original American work, until the key-note of criticism has come to us from beyond the sea.

"Such gross timidity and prejudice, on the part of our profession, would make us tremble for the cause of science, were it not for the fact that we see on every hand sure evidences of a growing liberality.

"In the severe strictures of the editorial to which Prof. Gross here replies, we made no invidious distinctions between different cities, or between the city and the country. If we had published the names of the persons to whom we referred, it would have been seen that, not only Philadelphia, but the city and State of New York, and other portions of the country, were held guilty. No longer ago than 1860, there was published a pamphlet filled with maledictions of the American reviver of *external version*, and signed by a large number of the most prominent obstetricians of the country, some of whom have passed away, but most of whom are yet living, which, if it had been exhumed from the ruins of the Inquisition, would have made our blood run cold with horror.

"When Prof. Thomas read some portion of it to his class, in the College of Physicians and Surgeons, it sounded like the voice of the middle ages. Whoever desires to know why America has given so few original thinkers to medical science,

let him read that pamphlet. Let him compare it with the persecutions of Galileo, and the ravings of the monks of Salamanca against the future discoverer of America. \* \* \* \*

"We agree that the standard of professional scholarship must be raised.

"On this subject we propose to cry aloud and spare not, until we see evidences of a radical change. The need for this reform is far greater than even Prof. Gross desires to allow. On this reform in our medical education we base our only hope for the future of science in America. The number of physicians among us who are ignorant, not only of ancient and foreign languages, but also of their own, who are ignorant of the great, broad principles of medical science, who are uncultured and mentally indolent, is simply appalling. If, as Prof. Gross says, the number of faithful, intelligent workers in the profession is legion, the number of stupid, ignorant drones is many legions."

To this combined declaration we say Amen! Stop it! we cry. Stop this manufacture of cheap doctors—of doctors, we mean, with diplomas cheaply earned in point of scientific preparation. We care not how low the lecture fees may be, or if medical instruction be made gratuitous; but would that all true physicians in every State would rise as one man and crush the authority of the term serving and venal to send out incompetent persons to practise an art which is as powerful for evil as for good! If all accounts be true, the parchments on which some diplomas are written should, we had almost said, be written in blood. To the list of the causes which have brought about the present inundation of patent medicines should be added the incompetency or the doubtful competency of some so-called medical men. People in remote districts, it is said, are shy of trusting the doctor who has given no other proof of his claim to confidence than his title, not because they require him to be a Louis or an Oppolzer, but because they are afraid to let him deal out to them drugs which may kill as well as heal. If the restrictions which are imposed in this State have made us suffer less from the evil in question than some other regions, our reputation yet feels to a certain extent the detriment to the general standing of the Profession which is wrought upon it elsewhere. Our present standard, we

would say, is none too high for most regions, and would bear to be raised for this. The best method of breaking down charlatanism of any and all kinds would be not by direct assaults; but by showing a better way—by keeping ourselves more strictly than ever a close corporation—a *closed* corporation to all who could not prove their right to enter in.

We coincide also with the *Record* in accepting the next two propositions of Professor Gross.

"3. *We agree that, in mechanical dexterity, inventive genius, and practical tact, the Americans are, on the whole, superior to the Europeans.*

"We think that Prof. Gross even underestimates America in this respect. We hold that surgical diseases of all kinds are as well, or better, treated in America than in Europe, and that, in a number of surgical conditions, such as deformities of various kinds, we are successful when the Europeans utterly fail.

"4. *We agree that certain kinds of learning do not necessarily make one a good practitioner of medicine.*

"It is possible to have 'learned fools' in medicine as in other departments. The physician needs all possible learning, but it must be of the *right kind*. Greek and Latin and mathematics are only a part, and by no means the principal part of learning."

The *Record* now proceeds to take up the points on which it differs from Prof. Gross. It says:—

"We beg leave to oppose the following statements that are offered in the accompanying letter, and which contain the gist of his criticisms on our editorial.

"1. *That 'in refinement, in general culture, in force of intellect,' physicians have not their superiors in either of the other professions.*

"This statement is so absolutely erroneous, and can be so overwhelmingly opposed both by special facts and by general observation, that we hardly know where or how to begin to reply to it. If Prof. Gross had stated that physicians were the wealthiest class in society, he could not have been further from the truth. We are surprised beyond expression that Prof. Gross, with his large experience and information, is unconscious of the great fact that, in our country especially, the best brains are *to be found among the clergy*. The American pulpit is, beyond all comparison, the most eloquent

pulpit of the world. This nation was founded on religious faith. Even now it has not forgotten its origin, and still gives its first fruits to the church. But this fact of the superiority of the clergy is not peculiar to America. In England, also, much of the best talent and education are monopolized by the clergy. The historian Fronde, in his magnificent inaugural address, recently delivered, complains almost bitterly that Oxford University is too exclusively a preparatory school for clergymen. \* \* \*

"The number of men in our country to-day who, after taking the highest scholastic or literary honors of any of our leading colleges, have entered the profession of medicine, could be counted on one's fingers. On the other hand, *hundreds of our clergymen, lawyers, and teachers, graduate with the highest of college honors in writing and in scholarship.*

"There is nothing mysterious in this fact. The explanation is as clear as the noonday. Most of our colleges were originally founded as schools for clergymen—nearly all their officers and professors are clergymen. A large part of their endowments were given with the expressed desire that they should aid in the education of clergymen. Very many of our young men enter college under this specific covenant, that they will enter no profession but the ministry.

"The clergy are literary, are honored and influential, and therefore those who love literature, honor and influence naturally gravitate toward that profession.

"The reason why so many graduates enter the law is equally clear. In this country, every man has a chance for political preferment. The law is the avenue that leads to politics. Therefore, young men who are ambitious of political honor, almost uniformly study law.

"Of late years, money has become a power in our colleges, and some of the best cultured graduates go into business.

"As long ago as the last century Edmund Burke declared, in the British Parliament, in no other country was law studied so much as in America.

"The fact is, that our college students, during their four years' course, live and move in an atmosphere of theology, law, or of business, and rarely think or hear of the profession of medicine.

"It is the impression even among educated men that physicians do not need a liberal education, are indeed better off without it. One of the firmest friends of liberal education that we ever knew once told a young man who was preparing for college

that "his four years in the University would be wasted if he intended to study medicine." One of the most promising of our New York surgeons, who died a few years ago, declared that all his life he had repented that he had been dissuaded from taking a collegiate course by a college graduate himself, who told him that a *physician did not need a liberal education.*"

We do not think the comparative numbers of college graduates who enter the different professions and callings of much account in this connection, because those numbers are regulated mostly by the law of supply and demand. At all events, the medical profession is notoriously overcrowded, only a minority attaining to success. But, on the question of the respective *quality* of the minds taking the different paths, we submit that it is difficult to make a categorical statement. Much room must be left for qualification. We think, however, the *Record* is mistaken in declaring that "the best brains are to be found among the clergy." Judging *a priori* this would seem to be a strange result, since the chief prizes of life in this country, so far as honors are concerned, fall to the legal profession and to politicians, just as those of wealth and display fall to mercantile pursuits. And, in point of fact, we have seen some of our most brilliant orators transferred from the pulpit to the forum. (Agassiz, said Dr. Holmes, if bred in this country, would have been lost to science, and have become a senator.) Again, the Professor, in striking the balance sheet between the clerical and the medical professions in Massachusetts, attempts to show that the entries to our credit preponderate over those to our debit. If the comparison under consideration be difficult to estimate, it is partly owing to the fact that a peculiar combination of qualifications is necessary to success in the medical profession: physical endurance; a sound *morale*; judgment blended with sagacity—or, the judicial cast of mind.

The third proposition of Prof. Gross is "that a good surgeon must necessarily be a good physician." The first paragraph of the *Record's* reply to this is as follows—

"This question must be argued, not by special cases, but on broad general principles. We hold that a man may be a skill-

ful, judicious, comprehensive surgeon, and yet be no physician at all. The converse of the proposition, that a man may be a skillful physician without being in any sense a surgeon, has always been admitted, and is practically demonstrated every day, in town and in country. The truth is, that surgery requires not only a different but an *opposite* cast of mind from medicine, and between the two a gulf as wide as the Atlantic intervenes. In making this statement we reprove neither physicians nor surgeons."

"We regret," says our *confrère*—"we cannot tell how deeply—that Prof. Gross has in this letter given aid and comfort to the despisers of our profession—already too numerous in America—by even implying that the chief duty of the practitioner of medicine is to be a *nurse*. The idea that prevails through the leading classes of American society that medicine is a "*useful*" profession—that we *need* doctors to prescribe pills and prepare powders, to deliver babies and pat children on the head—what any old granny can often do even better than they—and to collect their bills for these services some time the next year. If this idea is not wrong, nothing is wrong. This low ideal of our profession is absolutely monstrous, and in the name of science and human nature we enter our protest against it. The ideal for which our profession should aim is not only to give pills to patients, but to give law to progress and to reform; not only to feel the pulse of the sick, but to feel the pulse of society; to originate thought, to investigate, to experiment, to perfect and popularize science; and we hope that those who propose the study of medicine with any lower ideal than this will at once separate from us by an interval so long that in comparison the East and West will be cohesion.

"Again we say that a physician should and must be a scholar. By scholarship we mean *familiarity with the thoughts and acts of the world*. Physicians are successful usually in proportion to the *right kind* of scholarship which they have acquired. A man who is a good linguist or mathematician, and yet is ignorant of medical knowledge, is not a medical scholar, and cannot, of course, be a successful practitioner."

Under the fourth head the editor of the *Record* makes the following remarks:—

"The late Theodore Parker, in one of his suggestive lectures that won respect even from those who hated his theology, divided

ability into two kinds—the *organizing* and the *executive*—and stated that the organizing ability was superior to and of a higher order than the executive. Just here is the superiority of European physicians over those of America most readily apparent. We are superior to them in *executive* talent, in fact, in the mere *practice* of medicine, and perhaps also, in the average, obtain, as Prof. Gross claims, about as good results. This is, however, a matter of opinion, and cannot be well determined by statistics.

“But in *organizing* ability—in thought, in elaborating, systematizing power, and in power and originality of medical leadership, Europe is far ahead of America.”

The preceding passage is the one we alluded to in a late issue in a few words on the new philosophy of dislocation of the hip-joint.

The last formula is thus stated, “that the sentiments expressed in our last editorial will injure us in the eyes of Europe.” We conclude this notice by giving a portion of the reply without comment:

“We regret that Prof. Gross lends countenance to our national failing of conceit. Individuals, like nations, cannot create but must *earn* their reputations. In private intercourse unwarranted conceit always makes enemies and despisers; while genuine achievements, united with a dignified and independent self-confidence, always, in the long run, command respect, and by a law as sure as gravitation. Europe has despised America, not so much because of her youth and ignorance as because of her disagreeable over-estimate of her achievements.

“We would say to our brethren in Europe: We admit, gladly and without humiliation, that you with your concentrated population, aided by government, fostered by wealth, and trained in schools which centuries have perfected, have accomplished more in organizing medical science in ten centuries than we of the same blood as yourselves, with our scattered population, opposed and hampered by stupid legislation, cramped by poverty and imperfectly educated, have accomplished in two centuries. We are not jealous of your superiority in this respect; rather, we rejoice with you and are proud of your success. But mindful of the saying of the great Confucius, ‘What you know, to know that you know it, and what you do not know, to allow that you do not know it—that is knowledge,’ we claim that in a mechanical

genius, and a practical activity of mind, and all that makes executive ability, we have by transplanting to this new land become superior to our ancestors in the old world.

“But these achievements shall not content us. We aspire to and intend to reach the highest position among the *organizers* of science. Even now, our best and noblest men are pressing on with full force toward the mark of the prize of our high calling. Our determination is, that the fires of scientific persecution that have so long been burning and smouldering in our midst, and from which you yourselves have not been wholly guiltless, shall be extinguished at once and forever; that among us less honor shall be given to *importers* and greater to *originators*; that specialism shall be feared less and ignorance more; that in our societies and medical bodies less time and discussion shall be given to *ethics* and more to *science*; that, in short, we shall pay less of the tithe of mint, anise and cummin, and more of the weightier matters of the law. \* \* \*

“In concluding these remarks, we desire again to thank Prof. Gross for his excellent letter, which, with all its errors, we commend as a model of courtesy. If all our medical men were like him in ability, in culture, and in character; if, even in each of all our large capitals, ten men could be found equally good and true, then those severe words of ours would never have been written. If all, or even a majority, of controversial letters had been as kindly as this, much of the acerbity of controversy in the past would never have been known.”

RESTRAINT NEUROSES.—From an article on this subject by Roberts Bartholow, M.D., published in the *Quarterly Journal of Psychological Medicine*, New York, for July, 1869, we make the following extract:—

This term, “restraint neuroses,” is applied to designate a class of affections which consist essentially in functional derangement of the inhibitor or regulator nerves. Although inhibitor or regulator nerves are generally admitted to exist, there are very competent observers who refuse to accept this view of the office of these nerves. There is a *strong probability*, it may be stated with confidence, that four systems of inhibitory nerves exist:—

The cardiac.

The respiratory.

The intestinal.

Those controlling reflex movements.

The observations which I now propose to narrate belong to the restraint neuroses of the cardiac and respiratory symptoms [systems] of the inhibitory nerves.

Before giving the cases, it may be desirable to state, in a condensed way, the two views explanatory of those actions known as restraint neuroses. I may take a neurosis of the heart as a type. When a strong faradaic current is sent through the pneumogastric, an arrest of the heart-action takes place, in the diastole according to some, in the presystole according to others. When this nerve is divided, at first there is great hurry of the respiration, followed, however, by diminished movement of the lungs. These properties of the pneumogastric have originated the view that it is an "inhibitory or regulator nerve" of the heart. The action of atropia, as a paralyzer of the terminal filaments of the pneumogastric and as a stimulant to the ganglia of the sympathetic, supports this view. These actions of atropia have been experimentally demonstrated by Lemaitre and Meunier, especially the former.

The inhibitive action of the pneumogastric may be excited in two modes:—

By direct irritation.

By reflex action.

The most exaggerated illustration of the first is the stoppage of the heart's action by a galvanic current. Pain in a remote part may produce slowing of the heart's movements by an action which it is the fashion to call reflex. This occurs in certain forms of neuralgia. I have met cases—one of cervico-occipital neuralgia, especially—in which, when the paroxysms of pain came on, slow and feeble action of the heart was induced. Handfield Jones gives various instances of this kind, and remarks, with regard to angina pectoris, that he is much inclined to attribute this disorder to inhibitory action of the gastric nerves. This direct and reflex influence, causing a restraint neurosis of the heart through the agency of the pneumogastric, is a phenomenon of the nervous centre of animal life. Those who deny the existence of centres and nerves of inhibitory influence explain these phenomena in a different way. Thus we have the well-known "exhaustion theory" of Schiff. According to this view, a strong galvanic current simply "exhausts" the excitability of the pneumogastric. Cases occur, however, in which the inhibitive influence upon the cardiac movements seems to be produced through the agency of the sympathetic system. A violent

blow upon the epigastrium may cause a sudden arrest of the heart's action—"the crushing-blow" experiment. In this case the irritation is most probably propagated through the solar plexus. As the motive power of the heart is derived from the sympathetic, it is not unreasonable to suppose that irritation of a distant part of this system may be reflected upon the heart. In fact, this has been experimentally proved. Mechanical irritation applied to the abdominal sympathetic has caused great feebleness of the heart's movements. The more generally accepted view, however, is, that the restraint neuroses of gastric or intestinal origin affect the heart by means of the pneumogastric, the terminal filaments of this nerve being the seat of irritation. It is very desirable, in a question of such obscurity, to have light thrown upon it, if possible, by clinical observation. I have happened to meet two cases which seem to me instructive from this point of view.

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ON THE MEDICINAL USE OF PHOSPHORUS AND ITS COMPOUNDS.—We take the following extracts from an article, with the above caption, by John C. Thorowgood, M.D., published in the *Practitioner* for July, 1869:

Since the discovery and isolation of the element phosphorus by Brandt, of HAMBURG, in 1669, it has become the practice with physicians in this and other countries occasionally to prescribe this substance as a remedy in cases where some special stimulant to the nervous centres has seemed to be required. Thus we find that phosphorus has been administered in cases attended with great prostration of the vital powers, as in the latter stages of typhus fever, also in such chronic diseases of the nervous system as epilepsy, paralysis, melancholia, amaurosis, &c., occurring in debilitated subjects; and there is good evidence to show that in many of these nervous affections the effect of phosphorus, properly administered, has been decidedly beneficial. \* \* \*

The well-known fact that in cases where an unusual degree of wear and tear of the nervous system is being sustained it is common to find an excess of phosphatic matter excreted in the urine, while the individual becomes increasingly weak, nervous, and irritable, appears to show that exhaustion of nervous force is in some way connected with a rapid oxidation and excretion of phosphorus from the system.

Considering these points, we can see that there is reason in seeking to administer

phosphorus as an internal medicine where we have reason to suspect that the nutrition of nervous matter may be failing from a loss of its right proportion of this very essential ingredient.

We give phosphorus for its restorative action over weak nerves, just as we give iron to nourish and restore blood that is weak and poor from lack of this constituent. \* \* \*

Solid phosphorus, given in as small a dose as  $1\frac{1}{2}$  grain, acts as a poison, death seeming to take place in a gradual and painless way, with perfect retention of consciousness. There may be some vomiting, and the substances ejected appear luminous in the dark, as also does the stomach itself after death, when cut open in a dark place; but it is rare to find any marked inflammation of this organ: in the case of a bird poisoned by eating several grains of phosphorus, I could find scarcely a trace of inflammation anywhere in the digestive tract. In a case recorded by Casper, where a dose of 3 grains of phosphorus proved fatal to a lady in twelve hours, the body after death presented the extraordinary phenomenon of luminous vapor issuing from each of its outlets.

Analysis of the various tissues of animals poisoned by phosphorus has demonstrated the presence of phosphoric acid in unusual amount: this arises from the oxidation of the phosphorus in the body. Phosphoric acid is also increased in the urine of those who have taken any preparation of phosphorus. The action of phosphorus as a poison appears not to be due to any direct action on the nervous system, but to its preventing the assimilation of oxygen by the constituents of the blood; by thus checking oxidation it may cause the fatty degeneration of the liver so often met with in those who have been poisoned by phosphorus, and which is doubtless connected with the symptoms of severe icterus often seen in the patients before death.

For medicinal use there are solutions of phosphorus in ether and also in almond oil. \* \* \*

Another very useful preparation of phosphorus is a pill, made by melting finely-divided phosphorus with fat and then covering the pill with an impermeable coating.

Pills that I have seen and used, made by Messrs. Savory and Moore, contain  $\frac{1}{30}$ th of a grain of phosphorus in each pill. Both Dr. Radcliffe and Dr. Althaus speak favorably of the good effect of phosphorus, given thus in very small doses, as a valuable tonic in many chronic nervous maladies. \* \*

M. Tavnigot, in France, has long been in the habit of using phosphorus in the form of a pill, containing  $\frac{1}{50}$ th of a grain, as a remedy in nervous, chlorotic and strumous affections. In some neurotic and paralytic affections of the muscles of the eyeball, and of the lachrymal nerve, M. Tavnigot has used liniments of phosphorated oil with advantage; and, dropped into the eye, this oil is asserted after some month's use to have a solvent action on cataract. \* \* \*

As a gradual tonic and restorer of failing nerve force I prefer the hypophosphite of soda or of lime to the potash salt, and either of these salts appears to me to answer all the purposes of pure phosphorus as an internal remedy, while at the same time they are more manageable and agreeable medicines. In cases of nervous depression and torpor, with at times shooting neuralgic pains; or, in other cases, numbness and deadness of the limbs, as from feeble circulation, the hypophosphites prove useful, and the lime or soda salt can be given according to the way in which the stomach may seem to bear the one better than the other. When anæmia is present, the citrate of iron can be added to the hypophosphite of soda, or else the syrup of the hypophosphite of iron, or of iron with quinine, can be employed; and either of these syrups will prove an active tonic, removing neuralgic pains, chest oppression, and languor of circulation in a very evident way. \* \* \*

IMMUNITY FROM PHTHISIS. By GEORGE F. ELLIOTT, M.D., Hull.—*Apreros* of a recent reference in the pages of the Journal to Dr. McNab's pamphlet on this subject, permit me to say a few words. Among the possible agents in warding off phthisis from the inhabitants of the west coast of Scotland, Dr. Morgan (*Med.-Chir. Rev.*, vol. xxvi.) enumerates—out-of-door habits; nature of the diet; prevalence of ozone; distinction of race; and lastly, the use of peat for fuel. Dr. McNab, it seems, believes that the protective agent is the oxygen generated by a copious growth of algae. You have already pointed out why this is an untenable theory. With the exception of the presence of peat-smoke, Dr. Morgan shows that all the conditions which he mentions exist in other places where phthisis is prevalent; and, therefore, that they have no special protective value. I wish to point out a fact which has apparently been overlooked by Drs. Morgan and McNab; viz., the great length of time that has elapsed since the absence of phthisis from those places where peat was used as fuel was first noticed. Two

centuries ago the celebrated Thomas Willis wrote as follows:—"Communis observatio est, regiones istas, sive in Angliâ sive in Belgio, ubi cespites ignes nutriuntur et odorem valde sulphureum spirant, Tabem rarius infestare; quinimo loca ista phthisi obnoxia, aut ea laborantibus maxime salubria, et non raro sanativa existere" (*De Med Operat.*, sect. i. cap vi.). Though his explanation of the fact was wrong on chemical grounds, and though we may find it difficult to put forth a perfectly satisfactory theory of how peat-smoke acts, a consideration of the great antiquity of this observation, and of the physical characteristics of the two countries where it was acknowledged, enables us at once, I think, to eliminate all the other suggested protective influences from the question—What causes immunity from phthisis in the Hebrides? We cannot believe that in those days the people in the peat-burning districts of England and Belgium chanced to have a greater share of oxygen and ozone, or lived on a more oleaginous diet, or kept more out of doors, or enjoyed a more equable climate, than their neighbors who used other kinds of fuel; and we are thus, I think, compelled to confine ourselves to the solitary long recorded fact, that, where peat-smoke was, there phthisis was not prevalent. In fact, it seems to me that, of all the conditions suggested as protective, the presence of peat-smoke is the only one which is at all likely to have gone hand in hand with immunity from phthisis, in certain districts of England and Belgium, in the days of Willis, and to be doing so in the Hebrides to-day. But if I have endeavored to point out the obviousness of this fact, I am not, I confess, prepared with a conclusive explanation of it; nor, on the other hand, do I suggest that we have only to send our consumptive patients to a Highland bothie instead of to Hyères or Mentone. I think it probable that the peat-smoke has a protective effect in several ways; these have been already explained by Dr. Morgan in the article referred to, and I need not repeat them. Dr. McNab's arguments to show that no hygienic effect results from the use of peat-fuel, I consider far from conclusive, for reasons upon which I cannot enter here; moreover, my only wish is to aid, if I may, in the right solution of this interesting question, by pointing out the remarkable support given to Dr. Morgan's suggestions by this unnoticed testimony of Willis.—*British Medical Journal*.

PROF. J. E. BERARD has recently deceased.

DISLOCATION OF THE PATELLA ON ITS VER-  
TICAL AXIS SUCCESSFULLY TREATED. By CA-  
REY PEARCE COOMBS, M.B., LOND.—E. H.,  
aged 30, a strongly made country woman,  
was sitting on a heap of hay with her legs  
slightly bent, and resting on her heels. A  
young man came and set himself violently  
down on her extended legs, and caused her  
great pain in the left knee, where she felt  
something give way. When I saw her, an  
hour or two after the accident, the leg was  
kept straight, and the least attempt to bend  
the knee gave her pain. There was a pro-  
minent ridge running vertically in front of  
the knee-joint, produced by the outer edge  
of the patella, which might be felt under  
the skin, the bone being firmly fixed in the  
fossa between the condyles.

Flexion of the leg was of no use in at-  
tempting to reduce the dislocation, so I re-  
sorted to violent extension in this way:—  
She was on a mattress on the floor, and I  
knelt by her side on one knee, resting her  
left heel on my other knee. I then made  
strong pressure on the lower part of the  
thigh with one hand, while with the other  
I pulled the edge of the patella outwards,  
when the bone slipped at once into its place.

The case is recorded on account of the  
rarity of the accident and the failure of the  
method recommended for its cure. The  
crucial ligaments must have yielded to al-  
low the leg to be extended beyond the  
straight line (if the expression be allowa-  
ble), but they probably had been much  
strained in the accident. No swelling fol-  
lowed the injury, and on the third day the  
knee had so far recovered as to allow the  
patient to use it in walking.—*London Med.*  
*Times and Gazette*.

TREPHINING.—Baron Larrey, on present-  
ing to the Académie des Sciences a copy of  
the memoir he has recently published in the  
*Mémoires de la Société de Chirurgie*, ob-  
serves:—"The analysis of more than 160  
cases of traumatic lesions of the head, a  
portion of which have occurred in my fa-  
ther's and my own practice, enables me to  
come to the following conclusion—viz.,  
valuable as is the operation of trephining in  
the practice of Surgery, it still should be  
reserved for well-defined cases and precise  
indications, and not undertaken with pre-  
cipitation and in doubtful conditions, under  
the penalty of aggravating the accidents  
and hastening a fatal termination, while the  
prompt and rational application of other  
therapeutical resources will, in the great  
majority of circumstances, second the mar-



vellous efforts of nature for the cure of the most redoubtable injuries. I may also remark, as I have done many times on other questions, that such treatment, which is essentially active, substituted for the removal of a portion of the cranium, constitutes in these cases true conservative Surgery (which is not to be confounded with expectation), to which I have devoted all my efforts during my career of thirty years."—*Union Médicale*, July 10.

EXTRACTS from a paper on the Therapeutical Effects of Steam under high Pressure. By WM. BENNETT, M.D., Harrogate. \* \* \* The whole inner surface of the right thigh, from a little above the knee to about three inches below Poupart's ligament, now presented an immense ulcerated suppurating surface, with deep excavations and sinuous passages extending through the thickness of the skin down to the fascia. The borders of these excavations were swollen, shining, and of an unhealthy appearance. The portions of skin not yet involved had a dark bluish appearance, the ulcerative process going on underneath so as to engage those portions of the hitherto healthy skin.

He had been under treatment for a long time, both in different hospitals and under different private practitioners; was put under all kinds of treatment, both constitutional and local, and from a small ulcerated spot at first it gradually reached its present extent, and now appeared as if there never had been any attempt at healing. \* \* \*

The case began to improve a little; the general health seemed better, but the appearance of the ulcerated surface was little changed. What we gained by the soothing treatment of baths was lost by the increase of suppuration, and by the relaxation of the whole surface, and bandages could not be borne. It was evident I wanted a stimulant of such a nature as would increase the circulation of all the cutaneous vessels, allay the irritability of the exposed nerves by such an amount of heat and moisture as would not be followed by too great relaxation, and yet which would rouse the vitality of the part, and thereby set up a more healthy reparative process. I conceived that I possessed in the steam or vapor douche not only two of the properties which I required, but also when used under high pressure I knew I had the command of a very great quantity of electricity, not of very high tension, which, by proper management and regulation of the pressure, would give me a stimulant very different

from any that had been before applied. Persevering steadily with the vapor douche, I had the gratification, in a very short time, of observing a great change in the appearance of the entire ulcerated surface. The whole limb became more comfortable to the patient; the suppuration was greatly diminished; the swollen borders of the ulcers were flattening down, and it was evident the process of absorption was going on rapidly. Suffice it to say, after a residence in the hospital of about two months, I had the pleasure of dismissing this patient, capable of moving about without suffering, freed from all discharge from this extensively diseased surface, and cicatrization going on rapidly; and, after a month's residence at home, he was able to take a situation as toll-keeper on one of the southern roads in this county. I lost sight of him for more than a year, when I heard he died of typhus fever.—*Medical Press and Circular*.

THE ANTIDOTE.—The country around Pumpkin Creek, Georgia, is very sickly, and there is such a notorious prevalence of chills and fever in the district that it is the invariable custom to pass quinine pills with the dessert.—*Ibid*.

TRANSITORY BLINDNESS IN TYPHOID FEVER.—The fourth recorded case of this affection is related by Tolmatschew, of Kasan, in the *Jahrbuch f. Kinderheilkunde*, 2 Heft, 1869. The patient, aged 12 years, was brought into hospital with symptoms of advanced typhoid fever—great weakness, high temperature and pulse, delirium alternating with soporosity, sordes on lips and tongue, involuntary discharge of liquid stools and of urine; no rose-spots. He was said to be in the fourth week of his sickness. On his sixth day in the hospital he had regained sufficient consciousness to remark that he had become blind, seeing nothing, and having but feeble perception of light. Seven days later, his sight had become almost normal, only rather weaker than formerly.

Ebert states that this affection lasts from twenty to sixty hours, or at most three days; here, however, it lasted at least seven days. The case also differs from others in two points: 1st, vision was not restored completely, at least not at the time of the patient's discharge, thirty days after admission; and, 2d, an eruption of herpes on both temples occurred, a few days after the partial restoration of vision. D. F. L.

## Medical Miscellany.

**HUMBOLDT CELEBRATION.**—The Committee of Five appointed by the Boston Society of Natural History to prepare for the celebration of the Centennial Anniversary of the birth of Alexander von Humboldt, announce that the programme for this interesting occasion will include an Address by Prof. Agassiz and other appropriate exercises. The services will be held in the Music Hall on the 14th of September, at 3½, P.M. The proceeds, above expenses, will be devoted to the establishment of a "Humboldt Scholarship" at the Museum of Comparative Zoölogy, in Cambridge. Coöperation is earnestly solicited, to render this occasion worthy the illustrious name with which it is associated, and to secure its success as an educational movement. Prominent scientific and literary associations throughout New England will be invited to participate, and it is believed that this celebration will long be remembered in the annals of science. The price of tickets, with reserved seats, will be \$2.00 each; other seats, \$1.00 each. Orders for tickets, accompanied by the money, sent to Dr. Samuel Kneeland, Mass. Inst. of Technology, or Mr. Samuel H. Scudder, Boston Society of Natural History, will be at once answered by mail. A committee of influential citizens, chosen at a public meeting held for the purpose, and representing the various interests of the community, have consented to assist the Committee of the Society, and to any of these gentlemen donations may be sent.

**GUM-DROPS IN SICKNESS OF PREGNANCY.**—During the latter half of gestation, most women suffer from cardialgia. Some obtain relief from this distressing complaint by the use of alkalies, as bicarbonate of soda; and others from antacids, variously combined with bitters, &c. The vegetable and mineral acids are resorted to; bismuth and oxalate of cerium are tried. The whole routine is exhausted. Some give temporary relief; but at last all fail, and the patient is doomed to suffer to the bitter end. Under these circumstances, I can confidently recommend "gum-drops." This tormenting affection can be so ameliorated by their use as to make the condition of the sufferer more tolerable; and as the remedy is so palatable, there is no difficulty in continuing its use. They are also useful, as a palliative, in acid dyspepsia and heart-burn. The jujube-paste will probably do as well as the drops, which are made from the jujube-gum; but the latter form is the most convenient.—A. C. MATHESON, M.D., in *Transactions of the Medical Association of the State of Alabama*.

### LEGACY TO THE PARIS FACULTY OF MEDICINE.

A retired Paris shopkeeper has left by his will 150,000 francs for the purpose of founding a Professorship of History of Medicine, or, in the event of the Faculty not approving of this destination, some other professorship. As, however, it is stated that the money is not sufficient to endow a chair (at least 200,000 francs being required for this purpose), and as the testator insists that M. Cusco, whose specialty is ophthalmology, shall

be the first person to fill the post, it is doubtful whether the Faculty can accept the donation thus lettered.—*Union Médicale*, July 24.

**CLAUDE BERNARD, THE PHYSIOLOGIST.**—This celebrated physiologist has been called by Napoleon III. to the French Senate. He is now, besides Academician and Senator, Professor of General Physiology at the Museum, Professor of Experimental Medicine at the Collège de France, Annual President of the Académie des Sciences (l'Institut), Life President of the Société de Biologie, Member of the Academy of Medicine, Commander of the Legion of Honor. Twenty-five years ago, Claude Bernard was an apothecary's assistant in a country town.—*Med. Record*.

Dr. LOUIS ELSBERG has been appointed Clinical Professor of Diseases of the Larynx, &c., in the Medical Department of the New York University.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted:—Watermelon vs. Diarrhoea, No. 3.—Letter from Dr. Treadwell.

**BOOKS AND PAMPHLETS RECEIVED.**—The Science and Art of Surgery; being a Treatise on Surgical Injuries, Diseases and Operations. By John Eric Erichsen, Senior Surgeon to University College Hospital, London, &c. From the Fifth London Edition, with Additions by John Ashhurst, Jr., M.D., Philadelphia. Pp. 1228, and 630 Engravings on Wood. From the publisher, Henry C. Lea. For sale in Boston by James Campbell, 18 Tremont Street.—Surgery of the Cervix in connection with the Treatment of certain Uterine Diseases. By Thomas Addis Emmet, M.D., Surgeon-in-Chief of the New York State Woman's Hospital, &c. &c. Pp. 24.

DIED.—At Medway, 31st ult., Dr. James Hevey Sargent, 88, formerly Asst. Surg. U.S.A.

**DEATHS IN BOSTON** for the week ending September 4, 1877. Males, 57—Females, 50.—Abscess, 1—accident, 4—apoplexy, 1—perforation of the bowels, 1—congestion of the brain, 2—disease of the brain, 2—burns, 1—cholera infantum, 20—consumption, 16—convulsions, 1—croup, 2—cyanosis, 1—debility, 1—diarrhoea, 5—diphtheria, 2—dropsy of the brain, 3—drowned, 2—dysentery, 3—erysipelas, 1—fever, 1—typhoid fever, 3—haemorrhage, 1—disease of the heart, 2—infantile disease, 1—interpermea, 1—disease of the kidneys, 1—disease of the liver, 2—inflammation of the lungs, 1—marasmus, 3—cerebro-spinal meningitis, 1—old age, 3—premature birth, 2—puerperal disease, 1—rheumatism, 1—disease of the spine, 1—unknown, 7—whooping cough, 6.  
Under 5 years of age, 55—between 5 and 20 years, 5—between 20 and 40 years, 19—between 40 and 60 years, 15—above 60 years, 13. Born in the United States, 80—Ireland, 20—other places, 7.

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[VOL. IV.—No. 7.]

Original Communications.

THE ABUSE OF THE ALIMENTARY  
CANAL.\*

A paper read before the Middlesex South District Medical Society, at Waltham, April 21, 1869,  
by ALFRED HOSMER, M.D.

THE so-called mal-practice of surgeons is a subject of common talk and no inconsiderable exaggeration. The community is over-persuaded that in surgical practice there is a liability to bad, or at least unsatisfactory results, originating, as is affirmed, in avoidable errors of diagnosis or unjustifiable mistakes in treatment. Given, a tardy or an imperfect recovery from an accidental injury; a patient may, by a suit at law, declare and attempt to enforce his sense of the accountability of his professional attendant. But, notwithstanding the strong convictions which exist in connection with the subject of surgical responsibility, I think it may be safely inferred that the world does not yet fully realize that it is possible for a physician to be guilty of malpractice in the ordinary treatment of disease by drugs, &c.; for hitherto little or nothing has been said upon the subject outside of the profession, and no physician, so far as I know, has yet been sued for damages asserted to have arisen from mal-medication—excepting, of course, those cases in which drugs have been administered with criminal intent of any kind. Between physician and surgeon an unwarrantable distinction has been made, and insisted upon with too much strictness. The man who would censure a surgeon on account of the shortening of a femur, or the stiffening of an elbow after fracture, would hardly assume the same attitude towards an oculist because an ulcer of the

cornea had left an opacity; or towards a physician because an acute rheumatism had left valvular disease of the heart, or because a hydrothorax had produced a contraction of the chest. The cases are analogous, and if blame belongs in one case to the surgeon, so does it in the others to the oculist and physician.

The difficulties of judicious medication are no less in degree than those of skilful manipulation; and I see no theoretical reason why the former process is not as likely as the latter one to be mismanaged. Practically, I am convinced that there is as much of bad or wrong medicine as of bad or wrong surgery, and perhaps too much of both.

Our most thoughtful and candid men have of late freely acknowledged that we, as a body, have done those things which we ought not to have done; relieving, in a measure, the mortification and disgrace of such a confession by the extenuating circumstance that our doings have been simply wrong from ignorance, but although often detrimental to patients, not morally bad by reason of any intention of evil. This process of confession ought to be carried a little farther, and applied to the present as well as to the past. We are too ready to neglect the privilege and obvious duty of careful, independent thought, finding it so very easy to adopt and act upon the precepts and practice of our seniors, without challenging their soundness; accepting traditional opinions and usages with an indolent and implicit faith in the authority which transmits them. There yet remains much progress to be made by destruction; by the demolition of ill-founded theories, wrong ideas and mistaken practice. It behooves us to apply ourselves with all diligence to an attempted solution of the many unsettled questions which still encumber medicine. And as to those which are supposed to be settled, even in an absolute sense, they ought occasionally to be subjected to serious and careful reconsideration; they should be tested anew in the stronger light of a more advanced science, that any element of uncertainty may be

\* The writer selected the subject of the Abuse of the Alimentary Canal with the intention of discussing it in connection with, 1. Emetics; 2. Cathartics; 3. Injections; 4. Diarrhoea Mixtures; 5. Cough Mixtures or Expectorants. He was interrupted in the preparation of the paper by a long illness, after which accumulated work compelled him to finish it in a hasty and somewhat disconnected manner, and to content himself with a consideration of one division only of the subject.

detected if it exist, or that the highest possible degree of certainty may be assured. Thus only can the indefinite perpetuation of error be avoided.

The question to which I am going to ask your attention is, whether there is not a great deal of unnecessary, and of course improper, abuse of the alimentary canal by physicians. You undoubtedly anticipate an affirmative answer from me, believing, as I do, that there is a vast amount of treatment by medication, approved and adopted by not a bad class of practitioners, which involves and inflicts the abuse alluded to above. I take it that very many physicians would be greatly offended and would vehemently resent the charge, if they were told that a certain proportion of their prescriptions entirely overlooked the importance of the functions of the alimentary canal, and that therefore it must be supposed that they wilfully ignored that importance, or that they either knew or thought nothing at all about the subject. It is hardly necessary to remark that the importance of these functions is derived from the simple fact that the whole process of nutrition depends primarily upon them.

While I believe in the justice of the accusation implied in the foregoing remarks, I do not intend to assert, or even to intimate the revival and prevalence of the heroic practice which was in vogue when the recognized formula was, disease = health + something; which something was to be displaced and got rid of by a process of subtraction and reduction. The desired end was sought to be accomplished by resorting to energetic measures, which, having power, could not fail to produce an effect, more likely to be manifested in a reduction of the strength and reactive power of the patient than in a diminution of the activity and duration of the morbid process. The time of heroic treatment has gone by, and it is to be hoped that the age of medicinal heroes is giving place fully to a generation of medical philosophers, who endeavor to know what the limits of their art, narrow when compared with what some demand of it, have placed entirely beyond their power; and who regard it of the first importance in medical education to obtain a clear and exact knowledge of the natural history of diseases before studying the course and phases which they exhibit in connection with the ordinary processes of treatment.

The *Materia Medica*, long supposed to be a well-stocked depository of the indispensa-

ble weapons and implements of the physician, has hitherto been an object of profound veneration. And as the last traces of idolatry tenaciously resist the influence which, in its early action, has abolished the open, direct and free worship of idols, so far a profession which was once taught to believe, if not the omnipotence, the very great potency of drugs for good, it is hard to accept graciously the conclusions established by modern observation:—viz., that, generally speaking, mere medication is not the most important part of good treatment, and often lacks the innocence of being simply a superfluity. There is a striking and instructive reflection upon the absolute power of medicine in the course ordinarily pursued in critical cases, when the chances of life and death have passed the point of equal balance, and have assumed an unfavorable and dangerous preponderance. Then, no sensible physician claims that the prospects of recovery are to be improved by any system of drugging. He fully admits the unfitness and impropriety of such a plan, when he declares that whatever chance of recovery there may be, must be sought in the patient's constitutional strength, or, in better words, his tenacity of life. And this he earnestly endeavors to reinforce by nutritives and stimulants.

Notwithstanding the advanced point to which medical reform has been carried, there still exists, as a remnant and vestige of old idolatry, a lingering fondness for, and faith in, the use of certain remedies which are well-nigh useless so far as concerns the diseases and symptoms for which they are prescribed. Not only this, but by the derangements, not always obvious at first, which they produce in the digestive organs, they come to interfere with the process of nutrition, and thus produce serious damage. I think there is nothing which will furnish a better illustration of this point than a consideration of the methods and means which have generally been employed in connection with the very common symptom of cough.

That I might deal with facts instead of opinions and conjectures, and that I might be able to make before you a reliable assertion as to the use of a certain class of remedies, against which it is in part the purpose of this paper to urge objections believed to be reasonable, I made the following request of four different apothecaries, two within and two beyond my immediate neighborhood. I asked each one to inform me as to the ingredients of the different cough mixtures which he was in the habit of com-

pounding, in accordance with the prescriptions of regular physicians; and also whether such medicines were purchased in large or small quantities. As a result of the inquiry thus instituted, it appears that squills and ipecac, singly or combined, and often in large proportions, enter into the composition of more than eighty per cent., upwards of four-fifths, of the ordinary mixtures recognized and used as cough medicines. Senega, antimony and sanguinaria are three other ingredients, of doubtful utility, which are found not very rarely.

In the same manner, it also appears that large quantities are sold of these mixtures of which I have enumerated the elements which are of the most importance, so far as concerned my present subject, and to which, for the sake of brevity, I shall allude as expectorants. And that these are used, more or less extensively, not merely with the assent, but by the advice and upon the prescriptions of regular practitioners, is a point too evident, I think, to call for any particular consideration here. But why do physicians resort so freely to the use of expectorants in the treatment of cough and pulmonary affections? It cannot be because any one of them can produce a reasonable, scientific proof and demonstration that the former are, with any tolerable degree of certainty, a remedy of the latter. It is, I suppose, partly because it is in exact conformity with a popular prejudice which is so apt to regard a man's cough as the substance and essence of the disease under which he is laboring, and which imperatively demands something "loosening" for the relief thereof, and to which consequently such style of practice is entirely acceptable; and partly because in lecture days, when they received with a greedy credulity the sayings of their medical instructors, they heard from the chairs of *Materia Medica*, and *Theory and Practice*, something about the curative influence which it has assumed, rather than proved, expectorants exerted over pulmonary diseases. The permanence of early impressions is proverbial.

I will cite two instances to show the extent to which men who are ranked as faithful believers in Rational Medicine, may be guilty of a careless, illogical adoption of the ideas of others, and an unthinking reliance upon these ideas as safe rules of action. Expectorants were used in one case on account of a troublesome cough which commenced about the fourteenth day of a typhoid fever; and in the other, were prescribed for the frequent and somewhat difficult respiration which appeared in a child

already much reduced by the course of a severe attack of whooping cough. The rapid respiration, in the absence of characteristic râles which soon after appeared, and unequivocally declared a bronchitis, it was thought, might depend upon some nervous condition. In the nature of things, there is no reason why expectorants, as commonly understood, should have any power over an affection known to be typhoidal, or supposed to be nervous, in its origin. I can testify to their inefficiency in fact. Of absurdities so palpable, it would be premature to speak here, and I will only remark that we have here only two, of the very many examples of that old habit of association which inevitably suggests expectorants in the presence of any pulmonary symptoms.

In now passing to a detailed statement of the reasons why expectorants should not be used, as they commonly are, in the treatment of cough, it may make the case clearer to study, first, the pathological significance of the symptom, and secondly, the physiological effects, and, so far as it is well ascertained, the therapeutic action, of the drugs.

Cough is a modified expiratory act, which is either an effort to expel from the air-passages some exudation, effusion or abnormal secretion, or some foreign substance introduced from without; or it is the indication and expression of some cause or condition of irritation, existing within or without the respiratory apparatus, which produces a pulmonary tenesmus, if the phrase may be allowed.

Cough may be produced,

1. By mechanical irritation, as by long *avula*, and foreign substances in the air passages.

2. By pseudo-membranous or ulcerative affections of the larynx and trachea; the latter affections depending generally upon tubercle or syphilis.

3. As an almost universal rule, by all inflammations, acute or chronic, primary, consecutive or eruptive, of the respiratory apparatus, commencing with the larynx and including the glottis, and running down through the trachea, bronchial tubes, vesicles, pulmonary parenchyma, and pleura.

4. By those changes which constitute or accompany dilatation of the bronchi, and vesicular emphysema.

5. By various affections of the lung tissue, as tubercle, œdema, cancer, apoplexy, gangrene.

6. By certain paroxysmal affections, as asthma, whooping cough, and spasmodic croup.

7. By sympathy with, or reflection from, morbid conditions outside of the organs of respiration.

8. By hysteria, and some ill-defined conditions of the nervous system.

The foregoing enumeration, though arranged with some care, may seem, like an indictment in court, to involve certain repetitions. It does not claim entire completeness, but is believed to include all the ordinary conditions with which the symptom of cough is likely to be associated.

The U. S. Dispensary, admitting a definition of a class of expectorant medicines, informs us that they possess also decided emetic and cathartic properties, which are sometimes exhibited by very small doses, while large doses may produce dangerous prostration, or even a fatal gastro-enteritis.

If it be suggested that small doses of ipecac sometimes excite appetite and aid digestion, it must be remembered that the present discussion is not concerning stomachics.

Of the mode in which the alleged therapeutic action of expectorants takes place, we receive no very satisfactory exposition. Under the head of squills, it is said that the drug operates by stimulating the vessels of the lungs, which explanation is somewhat vague, coupled as it is with the statement that this same drug may be used both in cases of deficient and of excessive secretion from the bronchial mucous membrane. This asserted applicability of the same remedy to morbid conditions diametrically opposed to one another, implies a double-acting, discretionary alternative power which is not easily conceived of, and which must be akin to the wonderful discrimination and self-restraint claimed for homœopathic medicines, by virtue of which they refrain from producing an effect whenever their action would be injurious.

As we live in the days of a prevalent expectancy which constantly reminds the physician that he probably commands no power which he can bring to bear with directness and certainty upon disease for the purpose of its immediate eradication, and as frequently suggests to him that he will devote his attention more successfully to the mitigation of troublesome and distressing symptoms; and as cough so often produces a degree of discomfort which demands speedy relief, it is to be feared that in too many instances prescriptions have been thoughtlessly made for the symptoms, in accordance with a long-established custom, and without any careful discrimination as to the pathological condition in which that

symptom has originated; and patients have received expectorant treatment when the expectant method would have been better, as being equally efficacious and less injurious. However, every day witnesses the neglect in practical medicine of distinctions much greater than the two letters which make the orthographical difference between expectant and expectorant.

[To be continued.]

### "WATERMELON vs. DIARRHŒA."

By H. C. BICKFORD, M.D., Charlestown, Mass.

THE articles in the JOURNAL on "Watermelon vs. Diarrhœa," remind me of a story told me years ago, when I practised in the country. A neighbor of mine said that he had a remedy for dysentery, which never failed to cure when he could get the patient to try it. He said that he once had an attack of dysentery in a bad form. A physician was sent for, and he was put to bed and dosed with all sorts of drugs for nine or ten days, and all without the slightest relief to his sufferings. He said to his wife one evening, as he lay dreading the "ups and downs" of the coming night, "Here I have been for the last ten days, and am no better. I should like one of those seed cucumbers on the vines in the garden." Of course, such a thing could not be thought of for a moment. He got up in his night-shirt, went into the garden, pulled off a cucumber half as long as his arm and as yellow as an orange, devoured it peel and all, went back to bed, slept well all night, got up in the morning perfectly well of the disease, and has remained so ever since.

### Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

AUG. 9th.—*E.cephthalmos* resulting from *Intercranial Disease*; *Death*; *Autopsy*. Dr. WILLIAMS reported the case.

"On June 19th, 1869, M., æt. about 20, called on me with a letter from his physician, stating that he had been suffering from bilious and malarial symptoms, and had come to Boston for needed rest from very arduous duties as clerk of a large railroad corporation.

"The symptom for which he sought my

advice, exophthalmos of left eye, was in his physician's judgment already abated.

"Finding no evidence of tumor in the orbit, or cerebral symptoms of any kind; and vision being perfect in this eye and the ophthalmoscope showing a normal fundus—I hoped the protrusion of the globe might have resulted from anæmia occasioned by over-work and fatigue after an attack of 'dumb ague' which he had experienced some weeks previously.

"No apparent benefit seemed to result from rest and change of air, yet his condition remained the same until the 30th of June, at which time vision continued perfect and the fundus of the eye unchanged.

"At his next visit, July 8th, he reported that on the evening of the 5th he was exposed to cold wind and the bright light of fireworks. Some discomfort was felt in and around the left eye, and this morning he first observed great diminution of vision. He sees No. C of Snellen only at 10 feet distance. The ophthalmoscope shows much haziness of outline of disc, with slight hæmorrhagic effusions near macula lutea. Retinal veins very large and tortuous. No pain in or near the eye, or within the head.

"The right eye also showed slight haziness of outline of disc, which subsequently somewhat increased; but he was able, even at the last, to tell the time by a watch with this eye.

"On the 10th, the evidences of compression from within the cranium having increased, and great impairment of hearing in left ear having been superadded to the intra-ocular changes, his friends were informed of the probable existence of an intracranial tumor and a most unfavorable prognosis was given; though at this period no other cerebral symptoms had shown themselves.

"He continued to visit me at my office until the end of July, at which time he had an attack of faintness, as he expressed it, in the street, and I advised him to remain at home to see me in future.

"The eye had now become much protruded from the orbit, and the lids could not be made to close over it. The hæmorrhagic exudations had greatly increased, and it was now difficult to see the fundus on account of loss of transparency in the vitreous.

"He now began to complain of pain in the eye and head, but this was relieved by  $\frac{1}{4}$  grain doses of morph. sulph., which he took from three to five times in twenty-four hours until his decease.

"At times, during the week before his

death, which occurred August 8th, his mind wandered, but could be readily recalled by questions, and his intellect then seemed remarkably clear. The day before he died he was twice actively delirious."

The autopsy was made six hours after death by Dr. John Homans, who has furnished the following report:—

"Head only examined. Above each parietal eminence are seen flattened, vascular, malignant looking growths, between the fascia over the muscles and the periotenon of the skull; on the right side the growth is about 2 by 4 inches in extent and a line in depth; on the left side somewhat less extensive. When the periosteum is peeled up very many nodules and points of the disease are found to have penetrated more or less deeply into the skull, and in some places honey-combed looking outgrowths are seen projecting from the bone about a quarter of a line; this appearance is most marked on the left side above the temporal ridge of the frontal bone. The foramina for bloodvessels are larger and much more numerous than usual. On the inner table of the skull on both halves of the frontal bone are continuous bony outgrowths of a pink color, rough, of a honey-combed appearance, resembling the coral called 'brain stone'; the bony partitions of this structure rise to the height of a line and a half, and cover most of the vaulted portion of the frontal and both parietal bones, though less marked on the latter, and are seen over the left orbit and the left wing of the sphenoid bone. The dura mater is covered externally with a velvety, vascular growth, flocculent in water, the flocculi probably having filled the interstices of the coralline-looking growth above mentioned. There is a tumor the size of an English walnut, flattened and of rather soft consistence, behind the left orbit, growing from the dura mater. The left eye is much protruded from its socket, but the globe contains no foreign growth. The internal surface of the dura mater is healthy; the brain substance normal; the convolutions are slightly flattened. The growths on the outer surface of the skull, on the dura mater and the tumor at the base of the left orbit are all composed of small cells or nuclei, and are exactly similar in microscopic structure."

Aug. 9th.—*Acute Tuberculosis in Old Age.* Dr. Corning reported the case.

A gentlewoman, aged 83 years 11 months, sent for him in middle of June last to open a small abscess under the left ear. There were other glandular swellings connected with this, one of which suppurated and

opened spontaneously a few days later. She appeared weak, and complained of "laziness" which she said had troubled her more or less since a severe hæmorrhage from the nose nearly two years ago. "She needed no medicine," and none was given her. She was about house, though less active than usual.

On the 7th of July, growing weaker, she sent for him again, with regard to some business which she wished to transact in case she was soon to die. She complained of nothing but weakness and a gradual giving out of powers, appetite, &c. She had kept her room for a few days past. There was no cough. Respiration was not unnaturally frequent or short, but the pulse was quick and feeble. She was evidently failing.

Without any marked symptoms other than those described she sank gradually, and died, without the least struggle, July 14th.

Her history was somewhat peculiar. She had had eight brothers and sisters, all of whom died early of consumption. Her father and mother also died of the same disease. At the age of sixteen she was thought to be hopelessly sick with it, and life seemed to be maintained only by constant effort and determined will, until about her 30th year. She was married at 24; and had two children, who lived to middle age—one dying of consumption, the other of rheumatic heart disease. After thirty years of age, she never had a sick day, or any disorder except the epistaxis above alluded to. While her parents and other children were constantly taking medicine and resorting to any nostrum or measures which promised relief, she obstinately refused to take anything, except as much exercise and nourishment as she could possibly bear. To this she attributed her escape from early death. She kept her faith to the end.

An autopsy was made 24 hours after death, by Dr. John Homans, and the following is his report:—

"Body well nourished. Head not examined. Both lungs were thoroughly infiltrated with miliary tubercles, which in some spots had begun to soften. The kidneys were much degenerated, probably from senile atrophy. No Peyer's patches were found on a most careful examination of the small intestines."

In answer to a member, Dr. Homans said that he had recently examined four old persons, in two of whom he had found Peyer's patches, and in two not.

## Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 16, 1869.

### SULPHURIC ETHER vs. CHLOROFORM.

THE Editor of the *Chicago Medical Examiner* has very kindly and promptly complied with our request, and copied the certificate of the Surgeons of the Massachusetts General Hospital, to the effect that there has been no death at that institution, or elsewhere within their cognizance, attributable to the inhalation of sulphuric ether; also, documents from the Boston City Hospital, showing that nothing of the kind has occurred there. He has, besides, given the substance of Dr. Powell's explanation of the erroneous statement published by the reporter of Dr. Powell's remarks on that subject. But, our *confrère* alludes somewhat sarcastically to that alleged sensitiveness of the profession in Boston relative to the ether question, which led them to make haste to deny an aspersion upon the merits of the agent. Well! Let it be said, as people may please, that we are "sensitive" on the one hand; or on the other hand that we are merely awake to the importance of the point. What matters it? In either case we have good grounds for our state of feeling. If sensitive to detraction from the just claims of our favorite anaesthetic, why should we not be so? Was it not in Boston that the pain-annulling property of sulphuric ether was discovered, the stupendous boon of anaesthesia being thus, under Providence, given to mankind? Instead of being loaded with honors because this spot was selected for the inception of this great deliverance, we received in the first instance ridicule, and were treated as credulous dupes. Ridicule having been itself laughed to scorn by the irrefragable logic of facts, we have since been sedulously ignored in many quarters, to such an extent that the general drift of discussion and remark would often well nigh make it appear that Edinburgh, and not Boston, was the birthplace of anaesthesia. Thus far it has proved only a figure of rhetoric which declared that in whatever part of



the world the surgeon's knife should be guided painlessly through the quivering nerves, there the name of Boston would be uttered by thankful lips. While we say this, we fully acknowledge the enterprise which led Dr. (now Sir) J. Y. Simpson to seek out an agent which should be preferable to ether; and profess for ourselves the opinion that in *military surgery chloroform* has an advantage over ether in its greater portability, rapidity of action, and consequently, in many cases, its availability.

In some places, everything that can be made to appear to the discredit of ether is promulgated, while as little as possible is acknowledged in its favor. And when a fatal result is erroneously attributed to its inhalation we have reason for sending a speedy denial to pursue the accusation in its echoes through the medical press, because we have experience of an unwillingness to accord us the refutation of such charge. For example, reports of cases have from time to time appeared, in which it was said that death was caused by the inhalation of sulphuric ether. Some years ago, a committee of the Boston Society for Medical Improvement was appointed to report upon these cases. That committee sifted them carefully, gave a detailed account of all the facts they could obtain relative to them, tabulated the cases, and gave it as their deliberate inference that in *no one of the instances* was the death attributable to the ether. Now, M. Giraldès, one of the most eminent surgeons of the present day, in presence of a French medical association, stated (as reported in the *Gazette Hebdomadaire, &c.*) that the committee of the Boston Society for Medical Improvement had acknowledged *four hundred* (400) cases of death from the agent in question. Subsequently, the number 400 was corrected to the real total of cases *investigated* by the committee—viz., forty-one (41). But, the erroneous statement—as far from the truth as a positive can ever be from a negative—that the deaths were acknowledged to be attributable to the ether, when they were expressly declared *not* to be so, has never been corrected by M. Giraldès. It was in vain that we pointed out

to that gentleman that we did not question his right to draw for himself a different inference from the committee as to the bearings of the cases, and that all we asked was, that he should see and say what *their* inference was—that he should not persist in asserting that they said “yes” when they in reality said “no.” To this day the declaration of M. Giraldès stands before the French medical public that the committee of the Boston Society for Medical Improvement acknowledged forty-one (41) cases of death from sulphuric ether, and for his sole reply (“*pour toute reponse*”) points us to the table in the report, which report declares as plainly as language can put it that in no one of the cases was the death attributable to the ether. We have sent copies of this JOURNAL containing our appeals to his sense of justice to M. Giraldès, and to the Journal in which his charges and his controversy with us have appeared.

Let it not be supposed that the champions here of sulphuric ether as an anæsthetic have thrown down the glove, as ready to defend it against all comers, simply because it is a “Boston notion.” When chloroform was first placed before us, we tried it freely, both pure and combined with ether. We hailed it joyfully as being pleasanter and more rapid in its effects than the first-known anæsthetic. It was not until it was found wanting in safety that we declared against it. *Tuto, cito et jucunde* are the classical adverbs which must qualify the action of a first-class remedial agent. The one essential qualification, safety, we claim that ether possesses. When an agent shall be found to equal it in this respect, and excel it in rapidity and pleasantness of action, we are ready to adopt it. It will be forever enough for us that the first anæsthetic was used in Boston—that anæsthesia was discovered here.

But, with regard to chloroform we must carry the war into Africa. It is not sufficient that we abstain from its use ourselves. We protest against its employment in civil practice everywhere, when ether is obtainable. Each year adds its list of victims to chloroform, till now they are counted by hecatombs. No skill of operator, no

apparatus can avert the danger of its use. It avails not that the subtle vapor has been prepared by Duncan and Flockhart under Simpson's direction; it matters not that the subjects of its administration have been picked for the purpose, or that they have repeatedly taken it previously, without an untoward symptom; the predestined are known only to their Maker—they falter, and they are dead. We say to the devotees of chloroform in this country and abroad, how many more hundreds of human lives will you sacrifice to your prejudices, before you will be convinced, and seek safety where you know it may be found? To use chloroform when there is time and opportunity to employ ether, as is for the most part the case in civil practice, we hold to be morally wrong. If it were ever advisable to appeal to the public to interfere in professional matters, it would be in such a case as this, where human life is without necessity constantly jeopardized, and often destroyed.

One word more—that animals may be destroyed by being made to inhale sulphuric ether has been amply demonstrated by experiment. And that the human subject may perish from the careless administration of it we have no doubt. We only wonder that, in point of fact, lives have not been lost in this way. We have, however, yet to learn that etherization prudently induced is dangerous.

PAU AS A HEALTH-RESORT.—We are indebted to the interposition of Dr. H. I. Bowditch for the following letter descriptive of Pau as a health-resort. It was written in compliance with Dr. B.'s solicitation, and we rejoice to present such an account from a professional gentleman so thoroughly reliable. Dr. Bowditch, in a private note to us, after saying that Dr. Whipple has given many details that invalids and their friends may like to know, expresses his gratification that Dr. W. intends to take up his residence at Pau, and adds that the latter is himself evidence of the benefit to be derived from the air and exercise one can get in that place. We fully coincide with Dr. B. when he says it will be of great importance for us American physicians to

have there such a one as Dr. Whipple, to whom we can refer our patients with perfect confidence.

H. I. BOWDITCH, M.D.

My Dear Sir:—It gives me great pleasure to comply with your request to give you some idea of what one may expect to find at Pau. In the three seasons that I have spent there, I have seen the best and the worst of its climate, and have become somewhat familiar with the place and its belongings. The season of '66-7 was the average season—that of '67-8 the coldest known for 36 years, and that of '68-9 one of the finest for a long time, being for the most part exceptionally bright and warm.

Perhaps when I say that Pau is in the extreme south of France, and the chef-lieu of the department of the Lower Pyrenees, you will think the information superfluous. I have, however, received many a letter directed "Pau, Spain," and I must confess that I had rather an indefinite idea of the exact whereabouts of the place, before I went there.

The place is accessible from all points by rail—seventeen hours from Paris and twenty-two from Marseilles. Both these journeys are easily broken into short stages, if desirable, with resting-places of the highest interest to the traveller.

The town contains about 20,000 inhabitants, and each season brings between 2,000 and 3,000 visitors. Its situation is as beautiful as that of any town I have seen. The Pyrenees, the higher peaks of which are from 20 to 30 miles distant, extend around the city on the southerly side from east to northwest, forming as it were a kind of amphitheatre. The city itself is built chiefly on a little bluff overlooking the river—the Gaer of Pau—and its beautiful valley which lies between it and the mountains. Looking across the river and valley, the eye follows the côteaux, rising one over another, covered with all kinds of vegetation, from the vine to the spruce, until at last it rests upon the snow-capped Pyrenees, many of whose peaks rival the Alps even in height and rugged grandeur. Behind the town for two or three miles extend large level plains, the Landes, now largely broken up and cultivated. Aside from its situation, the city is not without external attractions, though the old part is somewhat dingy from six or seven centuries of wear and tear. The park—part of the hunting grounds of Henri IV.—the Place Royale and the Castle Terrace are beautiful at all seasons, and the promenades in the

immediate vicinity of the town are numerous and pleasant.

The place has been for thirty years much frequented by English, and later by our own countrymen, and the Anglo-Saxon race is famous for carrying along with it its customary comforts and for establishing a regular source of supply when it becomes stationary. So in Pau, besides comfortable, well-furnished apartments and hotels, and *maisons garnies* second to none in Europe, are excellent markets and good grocers provided with English and American articles, obtainable almost nowhere else on the continent except in Paris. Good servants and particularly good cooks are to be had for moderate wages, and very fair horses and excellent carriages at extremely moderate rates; though if any one is ambitious of great excellence or elegance in his mount or equipage, he must import them. The expense of living at Pau need not be great. Viewed after our extravagant American standard it is a very cheap place. I should say one might live in perfect comfort on two-thirds what it would cost to live in a corresponding style at Paris.

There are three English and one Scotch Presbyterian churches, all organized within several years. There is a comfortable English Club in a commodious club-house (built 1869), with good restaurant, an excellent and quite extensive library, and a large file of newspapers of all nations. This is easy of access to all visitors. There is a very pretty new theatre, where there are through the season dramatic and operatic performances, though it must be confessed that they are less famous than those at the Comédie Française and the Grand Opéra.

Pau is freer from the appearance of a place of resort for invalids than any I know, when there are so many who really seek it for sanitary reasons. The attractions of the place for the general visitor are so numerous that the proportion of invalids is largely reduced, and the place itself is so cheerful in its aspect and so much that is gay and lively is going on throughout the season, that one soon forgets the pale and sickly look of the poor fellow he has just passed.

The rides and drives about the city are of almost endless variety. The celebrated watering-places of the Pyrenees, as Luchon, Bigorre, Eaux-bonnes, Eaux-chaudes and Contrelets, are within from half a day to two days' drive, and are pleasant excursions, even in the winter; for it is very seldom that the roads are blocked for more than a few days, except on the high passes. Biar-

ritz is only three hours off by rail, and is every year becoming more and more frequented by winter visitors. The accessibility of all these places renders Pau a convenient place for those who intend to remain several years in a southerly climate; since one can have the advantage of sea or mountain air during the hot season, as may best suit him, and that without the fatigue and annoyance of a long journey. But besides these long drives there is a great variety of promenades of from one to three or four hours, which are as attractive as any I know in the world.

There is an excellent pack of fox-hounds, kept by subscription, which hunts three days a week. Even though one should not be strong enough or too little accomplished in horsemanship to follow the hounds, yet they are certainly a great attraction to the place. Though every one does not care to risk his neck or limbs across the country, yet one may enjoy riding or driving to a meet of the hounds, and seeing them throw off. Cricket and golf go on briskly on the plain of Billères, and some enterprising yankee will undoubtedly soon found a base-ball club.

All these details I think you will recognize as having an important bearing on the character of Pau as a place of sanitary resort. The fact that so many of these advantages are lacking in places certainly commendable for their climate, often renders useless, I think, a residence in such places. Though the sun may be bright and the air warm and the situation pleasant, yet the patient will often fail to derive the fullest benefit from them if there are gloomy influences about him, or if he has to go home from his walk or ride to find a poor dinner and a bad bed. The comforts for the *morale* as well as for the *physique* must be looked after.

Now for what many will regard as the most important point of all—the climate of Pau. If we take the word of some who have written about it, it is the climate we may expect to find in Paradise. If we listen to some one who has spent a rainy week there only, looking in vain from the Castle Terrace or the Place Royale for the white peaks of the mountains which he is told lie just over the river, and seeing Pau only from its muddy streets or his hotel window, we shall wonder that any one ever left the shadow of the State House to encounter the wretched climate and dull stupidity of Pau. *Medio tutissimus ibis*. One will have to go farther than Pau to find a perfect climate, and one might go very far,

too, and find no better. During the season of 1866-7 there were but seven days of what any one could call cold weather. About the middle of January came a fall of snow, perhaps six inches—very unusual for Pau—and for nearly a week the ground was slightly frozen every night. That was all the winter we had. The rest of the season, even invalids scarcely had need of a top-coat.

The season of 1867-68 was a very rare one, the coldest since 1831, and the suffering among the poorer class of natives, who have almost no provision for artificial heat in their houses, was extreme. The mercury fell one night as low as 19° (Fahrenheit), and several nights at intervals during the winter as low as 25°. But this did not seem very rigorous to one accustomed to an American winter, especially as the weather was brighter than usual, and, as usual, there was no wind.

From October, 1868, to the end of February, 1869, the temperature was like that of our best New England October weather, and the sun was obscured for scarcely a single day. Then came three weeks of rain, with frequent snow-squalls, which made everybody forget the fine weather just passed.

There is always a good deal of rain; but, in spite of it, the place is not damp. The situation of the town and the nature of the soil is such that the water very soon leaves the surface, and there is nowhere about the town any standing water. I used to find that my tobacco, left open in a room where the sun never shone, got so dry at the end of a few days that I could not smoke it. Even when it does rain, it is rare that an invalid, properly protected, cannot keep out of doors; for the air is almost invariably milder during a fall of rain than on the bright days. When the sun does shine, the brightness of the day makes one forget that he has ever seen any other weather. There is an indescribable charm in a sunny winter day at Pau which I have never seen equalled elsewhere.

About the city there is ordinarily almost no wind, and it is extremely rare—not more than three or four times in a season—that the wind is strong enough to be disagreeable to the most sensitive throat or lungs.

Those who are forced to seek a warm climate—especially if they have been accustomed to the changes of a New England winter and spring—are apt to expect of the climate to which they are sent all that is wanting in that they have left, and often fail to derive the fullest advantage from the

change by refusing to see that in all climates certain precautions are necessary, and that none are without disadvantages. So I have often heard it said, "Pau is subject to as sudden and as great changes of temperature as Boston." Hardly as sudden, and certainly by no means as great. Yet there are sudden changes, which will certainly prove detrimental if ignored. For instance, on a bright day there is a very perceptible difference between the sunny and the shady sides of the street. There is always a great change of temperature just at sunset. For half an hour before and as long after sunset, the strongest peasant will wrap himself in his frieze cloak, which he always has at hand. Later in the evening the peculiar chill of the sunset hour vanishes entirely. But these are changes which can be guarded against, and that most easily. I have been often surprised to find a most singular and unaccountable obstinacy against taking proper precautions, because, as I have heard remarked, "if I have got to take precautions, I might just as well have staid at home." I have never seen a sudden change of temperature in Pau which could not be perfectly easily remedied by buttoning or unbuttoning a moderately thick coat. And here I may mention something worthy to be borne in mind. Such clothing should be worn as can be easily adjusted to suit these changes.

As I have already said, there is a great deal of rain at Pau, and if one is opposed to carrying an umbrella, or to wearing thick boots, let him keep away from the neighborhood of the Pyrenees. But fortified with these there are few days when one can not keep out very comfortably. There are days when the air seems rather chilly and cold, and one is very apt to complain of this until he remembers that the brightness of the preceding day may make the contrast more striking, and, on consulting the thermometer, he finds to his surprise that it indicates a degree of cold which would not trouble him if he had not expected something more nearly approaching perfection in a place of sanitary resort.

The season for Pau is from October until May or June. Strangers ought not to go much earlier than October, and it is hardly ever safe to leave before May. Many lose the whole advantage gained during the winter by going north before the warm season is sufficiently advanced. Not only do they lose the benefit of their winter visit, but they lose the most beautiful season for Pau and its most charming environs. A few hot days often come in April and May,

but one can easily escape for the time, if desirable, to the mountains or to Biarritz—though I have never seen anything like an intolerable degree of heat before June, and the nights, even in midsummer, are invariably fresh and cool.

In what I have rather hastily written of Pau and its belongings, I have endeavored to avoid giving my own opinions of its fitness for a residence for invalids, particularly for those suffering from pulmonary disease, who constitute a large majority of the patients who frequent it. I have tried rather to give a general idea of what one may expect to find there.

I think these recommendations may certainly be claimed for it, viz.:—accessibility by easy conveyance, a large degree of general comfort, healthy diversion and cheerful surroundings for well or ill, and a climate sufficiently mild to admit of out-of-door life to a great degree. These are not very frequently united in one place. If one has already found a climate which suits well his individual case, I would certainly not advise him to change it for that of Pau; nor to go there at all if he is prejudiced against the place. In such case he would probably only see the disadvantages of the place—which are not lacking—and would certainly fail to derive the expected advantage from his residence there. I am firmly of the belief that climate, aside from other influences, will prove ineffectual in arresting and curing disease.

Very truly and respectfully yours,  
JEREMIAH WHIPPLE.

Nahant, Aug. 26, 1869.

REPLY OF DR. TREADWELL TO THE REJOINDER OF DR. BEACH. *Mr. Editor*,—I wish to say just a word in reply to the "rejoinder" of Dr. Beach, which appears in the *Journal* of August 26th, to show that the quotations contained in my letter which he reviews were accurate, and that the general meaning of the context was not misconstrued. After that I shall have nothing more to say upon the subject in question; as such a controversy can be neither edifying nor interesting to your readers, who of course have already formed their opinions of the nature of the case reported by Dr. Reynolds, uninfluenced by anything which has been written upon the subject.

Dr. Beach first notices what he designates "Proposition 6" of my letter, and which is as follows:—

"That Trousseau gives two cases in which the suppression of the menstrual

function"—*function*, and not *fluid*, being the word which I used—"was intimately connected with, and seems to have stood in a causative relation to the development of the disease in question."

To this Dr. B. replies:—"The fact that the uterine lesion *seemed* to stand in a causative relation does not prove that it did, although it might have co-existed with the other symptoms. Trousseau does report such cases, but in none of them does he state positively and without reservation that it was a cause."

That Trousseau does not make any positive statement in this regard I do not deny; but in view of the facts in the cases, which all tend to the support of the opinion expressed in my letter, and in the absence of any statement at all to the contrary, taken in connection with what he says further on in his lecture—to which I shall presently refer—I contend that the fair inference is, that he does regard the suppression of the menstrual function as playing an important part, to say the least, in the production of the disease in these two cases.

Under the title of "Proposition 7," Dr. B. next considers the following statement contained in my letter:—

"The same author"—Trousseau—"relates another case in which suppression of the menses was the exciting cause of this disease"—and says:—"It is not stated by Trousseau, in the description of this case, that suppression of the menses was a cause."

I did not say that he does so state. Whether I formed a correct opinion in considering suppression of the menses the exciting cause of the disease in this case may be judged from the following quotations in relation to it:—

"All the relapses of Mrs. B. had been preceded by a diminution or complete suppression of the catamenia." \* \* \* "In 1859, in the month of June, she had another relapse, or rather a fresh paroxysm, preceded by suppression of the menses."\*

Notice that the narrator of the case is particular to specify that all of the relapses, or fresh paroxysms, were preceded by suppression of the menses. And more than all, there is the strongest evidence in support of my assertion, that suppression of the menses was the exciting cause of the disease in this case, in the fact that the treatment adopted was directed especially to the pathological condition of the uterine

\* Lecture on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc., p. 589.

functions, and was in every instance perfectly successful.

Dr. B. then refers to my quotation of this same case, and says :—

"The case is cited by Trousseau to illustrate the value of hydropathy in the treatment of exophthalmic goitre, and speaks of it in connection with bleeding and digitalis, but not to direct especial attention to a pathological condition of the uterus as being a cause, although they coëxisted."

The fact that the treatment adopted in this case was directed especially to the uterus is sufficient evidence that the pathological condition of the functions of that organ was regarded as the exciting cause (to say no more) of the disease. The facts in the case are none the less facts, whether related in connection with the treatment of the disease, or spoken of in the details of its pathology.

To avoid unnecessary words, I rather abridged my second quotation, which in full is as follows :—

"I should, perhaps, dwell more upon the necessity of re-establishing menstruation. This is certainly an important therapeutic indication, but in order that it should succeed, one must wait until an hæmorrhagic tendency shows itself in the uterus. It would be bad medicine to try anyhow and at all times to bring back menstruation. One should know how to wait, and to act only when nature seems to indicate it."\*

My simple statement, deduced from the above, was as follows :—"Trousseau dwells upon the necessity of re-establishing menstruation," considering it "an important therapeutic indication."

Dr. B. replies :—"He does, but with other therapeutic agents and the following prefix"—here quotes from Trousseau.

I cannot see that Dr. B.'s remarks or quotation have any relevancy whatever to my quotation; much less do they weaken its evidence upon the point to sustain which I employed it. It is not to be supposed that in any case would this one therapeutic indication be followed to the exclusion of all others, were others present. My object was simply to show that Trousseau considered disordered menstruation an important agent in the production of Graves's disease in some cases, and this I think may be legitimately inferred from the above quotation, particularly when taken in connection with others to which I shall presently refer.

In regard to "quotations 3 and 4," Dr. B. says :—

\* Lectures on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc., p. 590.

"These statements do not contradict the conclusion of Trousseau when he classifies amenorrhœa and disturbed menstruation among the *symptoms* of Graves's disease."

Trousseau *does not* say that "amenorrhœa and disturbed menstruation" are nothing more than symptoms of Graves's disease; on the contrary, his lecture upon the disease in question contains ample evidence that he regarded them as having a share, at least, in the production of many cases of it. In support of this assertion I adduce the quotations already made, together with others which I shall presently cite.

In reply to the point made by Dr. B., that no cases have been reported of uterine disease having been found in persons dying of Graves's disease, and therefore that it does not occur as a cause of the same, I answer that uterine lesions may have existed and been overlooked. Again, uterine lesions are so common that although they may have existed and been noticed, they may have been thought to have had no bearing upon the disease in question. Then, again, pathological conditions of the uterus or the uterine system of nerves, which would be impossible of recognition after death, may have existed in some cases.

The recognition of Graves's disease as a true and distinct morbid entity—if such it really is, for the best authorities are disposed to regard it as merely a combination of certain symptoms, more or less in number in different cases, dependent upon some functional or structural disturbance of certain parts of the nervous system—is of too recent a date to preclude the possibility of additional light being thrown upon its pathology and the discovery of exciting causes and symptoms not heretofore noticed. The time has been when in the autopsies of persons dying of Addison's disease, the diseased supra-renal capsules were either passed unnoticed, or if noticed their significance was not understood. In the same way I need not refer to Bright's disease, leucocythæmia and other affections, which until within a few years remained unrecognized as distinct and specific diseases, and to the symptomatology and pathology of which additions of knowledge are constantly being made.

In regard to Dr. B.'s formidable array of works on the diseases of women which do not mention Graves's disease in connection with pathological conditions of the uterus or its functions, I simply refer to remarks above, believing them sufficient to rebut evidence so negative in character.

If anything more is required I refer to

the cases reported by Trousseau, and to the case reported by Dr. Reynolds; the direct and positive testimony obtained from one such case being of more weight than all the indirect and negative evidence which can be brought against it.

I wish here to remark that palpitation of the heart which is so common in cases of uterine disturbance, seems to be brought about in such cases in precisely the way and by the same causes which produce it in Graves's disease; and other conditions being favorable to such a course, it does not seem improbable that the uterine irritation which produces palpitation of the heart in such a case, might not in the end excite all the other symptoms which combined constitute Graves's disease.

As affording some evidence in support of this view, I make the following quotations from Trousseau, who in speaking of the relative time of the appearance of the respective symptoms in cases of Graves's disease, says:—

"Palpitation first attracts attention."\*

And again:—"The patients complain of palpitation long before the exophthalmos and goitre have attracted their notice, or that of their friends."† And still again, in alluding to the non-recognition of the disease formerly, he speaks of palpitation, mental disturbance and other premonitory symptoms, as long supposed to be due to "anæmia or chlorosis, or to painful or irregular menstruation;" and then goes on to detail the succession of the later and more prominent symptoms, goitre and exophthalmos, thus showing that uterine symptoms are among the very earliest indications of the existence of the disease in a certain number of cases.‡

Once admit that Graves's disease is one of the neuroses, and it must necessarily be conceded that it may be produced by uterine irritation. This being the case, there can be no question as to the relation of the uterine disease to the other symptoms in Dr. Reynolds's case.

That uterine disturbance may be an exciting cause of Graves's disease Trousseau virtually admits; but Dr. B. denies.

To support this assertion in regard to Trousseau I make the following additional quotations:—

"Most of the women who have Graves's disease suffer from amenorrhœa also. In the beginning menstruation is only disturbed, but it is after a time completely suppressed, and hopes of a favorable issue

are not to be entertained until this function is perfectly re-established. This is an important prognostic sign."\*

Surely if suppressed menstruation in such cases were only a symptom, it must be a very important one. But the above, when taken in connection with what he says in regard to the treatment of these cases, can leave no doubt as to his belief that pathological conditions of the uterine system are not without their share in the production of this disease in some cases.

"Perhaps when these paroxysms come to be better known, they will be found to have a certain relation to the hæmorrhagic molimen which takes place in the uterus every month; and if, on the one hand, it should be noted that in several cases amenorrhœa existed in the beginning, and, on the other hand, it be found that the symptoms abate, and the general disease improves, from the time that menstruation is re-established, or when the woman becomes pregnant, the practitioner will perhaps be able to deduce previous indications for treatment from these relations or those fortunate coincidences."†

Here he speaks explicitly upon the very point in question. Again, he says:—"The disease, in females, is occasionally brought to an end by the establishment of the menstrual flow, or by the supervention of pregnancy."‡

If the disappearance of uterine disturbance be all that is necessary to end the disease, why may not its accession be sufficient to produce it?

In commenting upon the case of a lady of 25, the subject of this disease, the same author says:—"Amenorrhœa had perhaps a large share in the production of the disease."§

He also details another case of long duration, in which diminished and finally suppressed menstruation was the very first and for some time the only deviation from health. During the course of this case, whenever the menses re-appeared the general symptoms underwent a certain degree of amelioration, although in the latter part of the report of the case the statements upon this point are not so full and explicit as could be wished; but as to the condition of the uterine functions previous to and at its commencement, there can be no question.||

Very respectfully,

J. B. TREADWELL.

\* Lectures on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc., p. 551.

† Op. cit., p. 546.

‡ Op. cit., p. 555.

\* Lectures on Clinical Medicine. A. Trousseau. Trans. New Syd. Soc., p. 550.

† Op. cit.

‡ Op. cit., p. 567.

§ Op. cit., p. 565.

|| Op. cit., p. 564.

"So much has been said, and so well said," on both sides of the subject treated of by Dr. Treadwell and others, that the moderator's gavel falls, and the debate is now closed.—Ed.

INTERSTITIAL CAUTERIZATION.—The *Gazette des Hôpitaux* of July 24 contains an account of the trials which M. Richet has been making during the last year of what he calls "interstitial injection of caustic substances." The caustic employed is the chloride of zinc, but, instead of using it in the solid form, M. Richet employs it after it has become liquefied by exposure to the air. Being very hygrometric, it is soon converted into a liquid of a syrupy consistence. The form of tumor which has been most frequently experimented upon is the sebaceous cyst of the scalp, which the French call *loupé*. It is possessed of little vitality and power of reaction, and it suffices to inject into its substance, by means of a Pravaz syringe, from one to four or five drops of the liquefied chloride. When the *loupé* is a true lipoma, consisting of nothing but fatty tissue, a few days after the injection its contents may be pressed out by the small aperture in the skin which is left by the little superficial eschar produced at the point of puncture. It has frequently happened that a single drop of the caustic thus injected has sufficed for the removal in this way of tumors of considerable size. In a case in which the *loupé* was formed by the transformation of some blood which had been effused as a consequence of a fall, enucleation could not be practised after the injection, and the knife had to be employed. The tumor, however, consisted of several firm, semi-transparent, fibrous-looking layers, in nowise resembling a lipoma; and this is the only instance of failure in twelve months, during which M. Richet has so treated a considerable number of *loupes*.

A week or two since, M. Richet tried this injection on an enormous goitre, making several punctures along the median line. There resulted mortification of the skin over an extent of about three centimetres, also sharp inflammation, with induration, and perhaps more or less gangrene of the median lobe of the thyroid gland. It is remarkable that the two lateral lobes diminished rapidly, and became more supple during this inflammation of the median lobe. The injections have been too recently made to allow of the eventual result yet being determined; but it will be a great boon if this mode of cauterizing proves efficacious, so that it may be sub-

stituted in the treatment of bronchocele for the *cautérisation par flèches* which is employed in Paris, and has in several cases been followed by fatal hæmorrhage.

In our number for May 22 we noticed the practice of Dr. Kraft-Ebing, which he states as being highly successful, in producing the rapid and painless enucleation of steatomatous tumors of the scalp, and which consists in the injection into their substance of a few drops of a solution of tartar emetic.—*Medical Times and Gazette*.

POISONOUS SOCKS AGAIN.—This very obscure matter is at length, we believe, to be investigated under the direction of the Medical Department of the Privy Council. The facts known about it are few and striking, but by no means clear. There is no doubt but that some persons who have worn silk socks, dyed with sundry brilliant colors, have suffered from most severe irritation of the skin, peculiar redness, vesication, intense pain and general illness. The affected patches of skin have corresponded exactly with the colored portions of the socks; and of all the colors red and scarlet have proved the most severe in their effects. The socks have been washed, and the color has been washed out, but still, we are assured, the irritating qualities have remained. Eminent chemists have thrown little light on the matter, but they agree that coal-tar furnishes the sub-stratum of the color, and it is certain that arsenic is an occasional, if not a constant, ingredient. This last is the opinion of the indefatigable Mr. Webber, who has forced this subject on the attention of the public. Why it is that so few persons have suffered from such articles of common wear, or should not have made their sufferings public, is a mystery; but whether or no poisonous colors are used, as we are told, to color sweetmeats, wines, and soaps, the matter seems one which a competent commission would soon solve.—*Ibid*.

BILLROTH v. KRAUS.—We have received from Dr. Pann, counsellor, of Vienna, the following paragraph:—

"The Imperial Court of Chancery at Vienna as jury, by the sentence of the same court, July 22, 1869, No. 12182, has convicted Dr. Bernhard Kraus, as responsible editor of the *Allgemeine Wiener medicinische Zeitung*, of the offence of neglect of proper carefulness, in the publication of a false notice, that Dr. Counsellor Billroth conducted a case of ovariectomy in his clinics,



and that it happened in this operation, after the section, that the removal of a sponge was found to have been omitted; and therefore condemned him to a fine of a hundred florins, or in default to twenty days' imprisonment, and to payment of costs."—*Ibid.*

**A WORM DISCHARGED THROUGH AN ABSCESS.**  
By FRANCIS McEVoy, L.K.Q.C.P., L.M., M.R.C.S. Eng., &c., Balbriggan.—A boy aged 14 years, delicate from birth, pale, thin, and small for his age, had passed at various times a vast quantity of worms, both by stool and mouth; had a very severe cough, and spat blood twice or thrice. His poor mother, who has since died of cancer in the stomach, at my solicitation sought further advice, and consulted several doctors both in town and country, and also brought him to hospitals without the least alleviation of his symptoms. His complaint was phthisis.

One day she called and brought me a red ticket, and requested that I would see him, as he had a lump like a blind boil just over his stomach. I did so, and found it as she stated. As I could not say what it was, I told her to wait, watch, and poultice, as I thought it would probably gather and break, and that I would call occasionally to see him. She did so, and in about three weeks I was again requested to see him in haste, although I had seen him the previous day, when he appeared to be going on very satisfactorily.

His mother informed me that upon removing the poultice in the morning to put on a fresh one, she perceived a white point sticking out of the middle of the abscess. At first she considered it to be matter, but on closer inspection she could see it move. She put on the same poultice again, and sent for me. Upon removing the poultice I perceived about two inches of one of the lumbrici protruding from the abscess. I seized it, and gently drew forth a large worm, nine inches long. It appeared to have been coiled up underneath the skin, and must have escaped through some ulceration of the intestines or stomach.

There was much matter in the abscess, if abscess it could be called; it healed up in a few days, and the boy recovered from it, but in about three months succumbed to the original disease. There was no *post mortem* permitted.—*Dublin Medical Press and Circular.*

THE illustrious anatomist, Carns, died at Dresden, the 28th of July, at the age of 80.

**PAINLESS SURGERY.**—Dr. Richardson had proposed to render surgery painless by using a rapidly revolving knife.

"Dr. R.'s letter in the *Times*, correcting the account of what occurred at the reading of his paper on painless surgery, ruthlessly expunges the prettiest little bit of scientific sensation writing which the meeting of the British Medical Association inspired. The picture of the rabbit quietly munching carrots whilst its ears were being cut to pieces by the wonderful revolving knife was worthy of Cid Hamet Ben Engeli, or any other venerable historian of marvels. We acknowledge that the idea of a knife revolving so quickly by clockwork as not to give pain in cutting is a capital one, and may, perhaps, turn out valuable in practice. Dr. Richardson, however, chivalrously disclaims any idea of experimenting with his new instrument on any one or anything but himself. Admiring his spirit of self-sacrifice, it may be urged that there are valid reasons why such an experiment should be tried on a lower animal rather than on the human. It might be suggested that, after the startling phenomenon of exalted special sensation which the *Times* correspondent, for instance, has furnished, a reasonable argument might be advanced for testing such a matter by a more trustworthy, if less delicate, instrument than the human sensorium. A rabbit would most surely exhibit signs of pain if it felt it. In an experiment on one's self, with the strongest intention to be accurate, it is quite conceivable that the objective phenomenon—the cutting by watchwork—might neutralize the subjective phenomenon—the pain. On the whole, we think we would rather trust the evidence of the rabbit."—*Medical Times and Gazette.*

**SCIENTIFIC EVIDENCE IN CAPITAL TRIALS.**—Whilst a conviction for murder rests upon the evidence of one expert, or of one expert mainly, it will always be unsupported. Chemistry itself undoubtedly cannot err, but the best chemical manipulators may. No experiments where a human life is at stake ought to pass unchallenged, and we maintain that no jury ought to be required to decide on the evidence of a single expert. In every trial for murder, the suspected articles ought to be sent to at least three toxicologists of undoubted rank, each of whom should be paid at the public expense, to make a separate examination. By such a plan alone will even the best chemical evidence be cleared from all suspicion of fallacy.—*Ibid.*

## Medical Miscellany.

**NEVUS CURED BY INJECTION OF CARBOLIC ACID.**—Mr. Porter exhibited to his class a child named Margaret B., aged ten months, who had been received into hospital, about six weeks previously, for the treatment of a large nevus, situated on the lower part of the forehead, immediately above the nose. It was venous in character, and when first seen was circular in form and as large as half-a-crown, projecting forwards considerably. He resolved to attempt its solidification and cure by the injection of carbolic acid, and accordingly two minims of pure acid were introduced into the nevus by means of a hypodermic syringe. Such inflammation as followed having been allowed to subside, the operation was repeated, seven times in all, an interval of several days being permitted between each injection. No untoward consequences took place; the skin was not injured; and now, after the seventh operation, the mass had become solidified, and would in due time be absorbed.—*Dublin Medical Press and Circular*.

**BLOODY TUMOR OF SCALP TREATED BY FREE INCISION.** Under the care of Mr. SMYLY.—James Y., a healthy man, *æt.* 56 years, was admitted into the Meath Hospital on the 6th of July, suffering from an extensive effusion of blood beneath the scalp, which had been caused by direct violence. The tumor, which was about two inches in diameter and of considerable depth, was situated over the left parietal bone. The great amount of blood effused, and the general condition of the parts, causing Mr. Smyly to dread that suppuration would ensue, he resolved to give exit to the effused blood. He accordingly made a free incision down to the bone, and squeezed out all the clots which were present. Some smart arterial hæmorrhage followed. The edges of the incision were then brought into apposition, a narrow strip of lint soaked in carbolic acid was applied to their junction, and over all a compress and bandage was placed. Three days afterwards bad symptoms set in, and the man appeared in a sinking condition. The compress was removed, poultices were applied, the man rapidly improved in condition, and in a week was sufficiently recovered to leave the hospital.

This case is worthy of notice, inasmuch as the usual practice in Dublin hospitals in such instances differs from that pursued by Mr. Smyly, who cut into the tumor, instead of, as is generally recommended, carefully avoiding any incision whatever.—*Ibid*.

**AMBYLOPIA CURED BY HYPODERMIC INJECTION OF STRYCHNIA.**—Dr. Jos. Talko, of Tilsit, reports (*Klin. Monatsblätter f. Augenheilkunde*, Mai) a very interesting case of amblyopia cured entirely and solely by this method. The doses used were one twelfth raised gradually to one fourth of a grain of nitrate of strychnia; the injection was made in the neighborhood of the affected eye; it seemed to answer best when done in the supra-orbital region. The cure may be

said to have occupied about seven weeks, and was then complete. It is remarkable that such large doses, repeated as often as once a week, produced neither local inconvenience nor constitutional poisoning, with the exception of the trivial symptoms.—*The Practitioner*, August, 1869.

**A NEW STYPTIC COLLODION.**—M. Carlo Paresi gives, in the *Gazette de Turin*, the following recipe:—Collodion 100 parts, carbolic acid 10 parts, tannin 5 parts, benzoic acid 3 parts. Agitate until a perfect solution is formed. It is of a brownish color, gives a pellicle similar to ordinary collodion, and instantly coagulates blood.—*Indian Medical Gazette*, July 1, 1869.

**GUN-COTTON** explodes when metallic sodium or metallic potassium is brought in contact with it. The amalgams of these metals do not produce the same effect. Finely divided arsenic requires percussion before it explodes cotton.—*Druggist's Circular*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic. 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—Communications accepted.—Review of Archives of Ophthalmology and Otolaryngology.—Internal Use of Carbolic Acid.

**BOOKS AND PAMPHLETS RECEIVED.**—A Guide-Book of Florida and the South, for Tourists, Invalids and Emigrants, with a Map of the St. John River. By Daniel G. Brinton, A.M., M.D. Published by Geo. MacLean, Philadelphia. Pp. 135.—Report and Remarks on a Third Series of one hundred Cases of Cataract Extraction by the Peripheric-Linear Method. By H. Knapp, M.D., Surgeon to the New York Ophthalmic and Aural Institute, &c. Pp. 30.

**DIED.**—At South Dedham, Dr. Charles W. Heaton, only son of Dr. George Heaton, of this city.—At Salem, Jonathan F. Worcester, M.D., 63.

**DEATHS IN BOSTON** for the week ending September 11, 101. Males, 57—Females, 44.—Accident, 4—apoplexy, 1—disease of the bladder, 1—congestion of the brain, 1—disease of the brain, 4—bronchitis, 1—cancer, 3—cholera infantum, 17—consumption, 12—croup, 2—cyanosis, 1—diarrhea, 4—dropsy of the brain, 3—dysentery, 3—dyspepsia, 1—scarlet fever, 2—typhoid fever, 2—gas-tritis, 2—hemorrhage, 1—disease of the heart, 3—infantile disease, 3—intemperance, 1—jaundice, 1—disease of the liver, 2—inflammation of the lungs, 7—marasmus, 2—old age, 3—paralysis, 2—premature birth, 2—puerperal disease, 2—purpura, 1—tumor, 1—unknown, 6.

Under 5 years of age, 49—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 11—above 60 years, 18. Born in the United States, 78—Ireland, 12—other places, 11.

## Original Communications.

ON THE TREATMENT OF TYPHOID FEVER  
BY THE RECONSTITUENTS.

[The following paper is the translation of a pamphlet received from our friend, Dr. S. F. Cones, U.S.N., attached to the war steamer Richmond, now in the Mediterranean. The editor of this Journal being of the same opinion with the translator as to the great value of the memoir, kindly gives it circulation through his pages. It is entitled, *Du traitement de la fièvre typhoïde par les reconstituants. Mémoire présenté à l'Académie Royale des Sciences de Lisbonne. Par le Docteur Lucien Papillaud (Henri Almès). Lisbonne, Imprimerie de l'Académie. 1869.*]

Thirty years ago, the treatment of typhoid fever consisted mainly in bleedings, blisters, and a severe diet; more recently, purgatives replaced the bleedings, but without changing the diet. While the majority pursued this course, certain attempts at special medication were essayed, either after the practice of Professor Serres with mercurials and principally the black sulphure of mercury, or after the practice of Professor Chomel with the alkaline chlorides. At present, we have recourse by preference to medicinal and alimentary tonics, and even, in a certain degree, to stimulants. This last change comes from England, and originated in the methods of Graves, of Todd, and of Bennett.

It is proper to recognize, that since the abandonment of bleeding and blistering, the more moderate use of purgatives, and the alimentation and tonification of patients, the mortality of typhoid fever has considerably diminished.

There is yet a medication, which from day to day is taking a larger place in therapeutics, and that is, reconstructive medication. We do not know that it has been as yet formally instituted for the treatment of typhoid fever. Some of the medicaments which form the elements of this medication are, however, often given in the course of that malady, but without system or coun-

tion, without co-ordination, and without the bond of a fixed idea or a principle dominating the indications in detail. It is to attain that object that this memoir is written.

We admit, with the English physicians just cited, that whatever phenomena of hypersthénia and phlogosis may exist at the outset of a malady, it must not be lost sight of that, during its course, there always comes a time when such a condition is replaced by hyposthénia and anæmia; to excitement succeeds torpor, to the violence of inflammation succeed depression and weakness. Every affection which would seem to commence in excess of vitality, ends in a want of vital resistance, so that the therapeutic means which may have been directed against the symptoms of the initial period are found to be expressly counter-indicated as to those of succeeding periods, and in fact act upon the side of the disease rather than to the advantage of the patient.

However, fever and inflammation itself are no longer considered as symptoms of super-activity; they are but passive phenomena, due to hyposthénia, or to paralysis of the vaso-motor nervous system, and this etiology should exclude all idea of curing them by enfeebling their subject through the subtraction of blood.

Finally, and as a conclusive reason, typhoid fever, being regarded as a miasmatic poisoning, such poisoning should exist partly, at least, in the blood, and it is to heal that altered blood and not to diminish its quantity, that treatment ought to tend.

Does not the treatment by daily purgation also consist in repeated spoliations which enfeeble the patient without palliating the disease? In applying purgative medication to the typhoid pyrexia, we subserve the idea of an elimination of the toxic principle through alvine evacuations. But that is an unproved hypothesis, of which hitherto the demonstration has always failed. Cholera, dysentery (the epidemic form, at least), are they not also toxic and infectious maladies? In these affections, do constant alvine evacuations serve to eliminate the toxic principle? Do they not tend rather to

eliminate the patient, who drops off in this incessant melting away of all his tissues and all his organs? And in typhoid fever itself, does there not generally exist an intestinal flux whose persistence, instead of diminishing or abbreviating the disease, is, on the contrary, an unfailing sign of its malignity, and a presage of its fatal termination? For these reasons we think there should be great caution as to the use of purgatives in typhoid pyrexia, and but little good can be expected from their continued use, and from their assumed eliminative action. We would lay down the rule to abstain, in such cases, from all medication which, directly or indirectly, might despoil the organism, by a constant or repetitive action. The spoliation of the organism and the enfeebling of the subject, are they not the effects of every malady? Why in our usual therapeutics should we aid in this spoliation and enfeeblement? Is it not indicated rather to sustain and consolidate, to the extent of possibility, the physical and moral forces of the patient, against the cause which tends to depress and annihilate them?

In the treatment of a disease of limited duration, like typhoid fever, and in the absence of a specific medication, the problem, to our view, consists in making the patient last longer than the disease, which latter, after accomplishing its evolution, becomes extinguished after a delay variable indeed, but having an assured limitation. To endeavor to make the patient survive the disease, that the latter may be left afterwards to be itself cured by gradual extinction, is a very modest programme, which if only it could be realized, would spare us, in a great number of instances, many disappointments and many deceptions. This would not be an aggressive *medicine*, it would not be an attack according to rule, upon the disease, it would be an expectantism assisted by a therapeutic action, yet approaching more closely to hygiene than to therapeutics. Such is the programme of treatment which, in the present state of science, it would seem to be rational to oppose to typhoid fever, and, to carry it out, we conceive nothing to be better adapted than a reconstructive medication.

After these few theoretic considerations, we proceed to the more practical part of our undertaking.

Every disease commences in a germ which is hatched, is developed, and remains longer or shorter stationary, then decreases, and finally disappears. These several periods are marked by the symptoms of incubation,

invasion, persistence and decline. There is, then, in the progress of a disease, an order and succession regulated in advance and generally followed. In entering upon treatment, it is always of advantage to begin by deranging this order and breaking up this regularity by means of a disturbing medicament, intended to impress upon the organism a sudden but fleeting shock. We make choice of tartarized antimony to fulfil this indication, and we commence in our method of treatment by giving it either in three or four emetic doses, or else in divided doses, repeated hourly during an entire day. After this preliminary and preparatory medication, we commence upon the treatment by the reconstituents.

The title of reconstituents is given to many therapeutic agents, but it seems to us that those which possess this quality incontestably in the highest degree are mineral waters, iron, arsenic and quinine.

Taking into view the pale, yellowish and earthy tinge, which is always observed, at the most critical period of their disease in the subjects of typhoid fever, and the alteration of the blood of which that tinge is the most certain index, we have conceived the idea of submitting the persons so affected to the influence of a ferruginous mineral water. This medication aims to prevent or to diminish as much as possible the lesion of the sanguineous fluid, by putting the organism under the influence of iron, which is pre-eminently the reparative of the blood, and by giving this medicament as mineral water, the form in which it is best tolerated, producing at once, with the smallest doses, the most considerable effects. But it would seem, moreover, that we should take into account one of the most important elements of the typhoid pyrexia, its bronchial catarrh, so distressing, so fatiguing, so persistent, and so remarkably exhaustive of the strength of the patient. Bronchial catarrh, which gets as far sometimes as broncho-pneumonia, is an almost constant symptom in this affection, for we have found it in a degree more or less pronounced in nearly nine-tenths of our cases. If the catarrhal phase of typhoid has not been forgotten in nosographical descriptions, it is almost passed over in silence in the therapeutic indications. We may well be astonished at this omission, for lesions of the respiratory passages are quite as important as those of the digestive passages, and a medication which could advantageously modify the former might be of as great value in the final result as that intended to cicatrize the ulcerations of

Peyer's patches. Is it objected that the lesions of the intestinal follicles are constant, while the bronchial lesions may be wanting? Such an objection is of little force, for in reality, in observing pulmonary catarrh in nine tenths of cases, whatever their termination, we authenticate it more often than we do the anatomical alterations of the intestine, which can only be verified in fatal cases, happily constituting the smallest proportion.

Bronchial catarrh appears, then, entitled to have a part in the medication of typhoid fever, and we meet it with the sulphurated mineral waters. Among these we prefer the *Eaux de Bonnes*, which in France are rightly held to be the best tolerated, the lightest, the most digestible, and the most assimilable. Our medication consists in making the patient drink, in proportion to his thirst, and without fixed dose, alternately a ferruginous and a sulphurated water, either plain or moderately sweetened; prescribing at the same time an alimentation regulated to the appetite of the subject, and consisting of bouillon, soup, milk, and even meat and wine, when inappetency does not refuse them.

When we first began to practise this treatment, it was, in the first instances, only at a very advanced period of the disease, and after the employment of other means persistently fruitless. We saw under its influence the color of health gradually restored, while, at the same time, the cough diminished in frequency and intensity. Expectoration became easier and gradually dried up. Evidently, sanguification had been favorably affected by the ferruginous water, at the same time that the sulphurated water exercised its elective and medicative influence upon the pulmonary mucous tissue. Such excellent results bound us to employ this treatment from the outset of the disease, and before the appearance of the symptoms whose modification was had in view. We would act thus with the intention of preventing, or at least of diminishing the sanguineous alteration and the catarrhal invasion. This result was attained in a great majority of cases, and we had the satisfaction of seeing the patients subjected to the use of ferruginous and sulphurated waters preserve a coloring of the complexion approaching that of health, and to have to suffer only a deferred and moderate catarrh, and even to be completely exempt. Besides, with these patients, the appetite, strength and condition were relatively preserved—all the symptoms of the affection were remarkably lessened, and its

entire duration generally limited to twenty days. Most of the subjects noticed that the ingestion of the mineral waters was followed by a sensation of comfort, and that whenever, by accident, they happened to be deprived of them, their suspension had the same effect as a deprivation of food. The mineral waters are not only special remedies addressed to this or that morbid manifestation, according as it occupies this or that organ; more than any other of the reconstituents do they stimulate innervation and nutrition, and thus restore the strength, and repair the organic and dynamic losses caused by the disease. When a quality is so constantly seen to be the attribute of nearly all the mineral waters, so diverse in their composition and therapeutic properties, we are tempted to divine its cause in a substance distributed throughout nearly all of them, and which does not require to be found in large proportion, to play an active part in them: that substance is arsenic.

This arsenical mineralization, which formerly was not suspected, and which has been besides urged to the discredit of some thermal establishment, is found in nearly all waters where analysis has sought for it. For many years it has been authenticated in eighty-two sources, and it is evident that these figures of arsenical sources must yet increase as research extends in that direction. The carbonated ferruginous waters, especially, are almost all arsenical. Arsenic is an admirable adjunct of iron, and nature gives us by the almost constant association of these two substances in her mineral waters, a lesson from which, hitherto, therapeutics has but little profited.

We had thus combined an arsenical water with the ferruginous water, and were therefore encouraged to administer directly and separately certain officinal or magistral arsenical preparations, whose doses might be adapted to the end in view. This was done, varying the doses from two milligrammes to one centigramme, and it appeared to us that this remedy most happily influenced the disease in general, diminishing the intensity of the febrile movement, correcting the departure from innervation known as ataxia, aiding the resolution of passive and hyposthenic congestions, and finally, in an appreciable degree, sustaining nutrition.

The notion of pathogenic fermentation, regarded as the cause of infectious diseases, is becoming more and more general. The remarkable works of an Italian physician, Professor Polli, have demonstrated the neutralizing action of the sulphites and

hypo-sulphites upon pathologic fermentation, as the recent observations of Professor Barbosa, of Lisbon, have proved the efficacy of sublimated sulphur upon the parasitic productions of diphtheria. This will aid in the interpretation of the good effects of sulphurated waters in admitting the antiseptic action of their sulphites, and it might also partly explain, by an analogous action, the parasiticide action upon micro-zoaires, and micro-phytes, the efficacy of arsenical medication. These explanations do not rest upon hypothetical interpretations, they are founded upon properties perfectly demonstrated, and upon numerous and rigorously observed facts.

It may possibly be objected to the treatment of typhoid fever by mineral waters, that these waters bottled are articles of luxury, that is, of high cost, and beyond the reach of poor patients. In fact, it would be impossible to employ such an expensive medication with the poor, especially as their use should always be prolonged. Under such circumstances, where some substitute for high-priced remedies must be found, and even improvised, we have endeavored to make up as far as possible for what could not be got, and have had both the ferruginous and the sulphurated waters prepared artificially by the most simple processes. The first was done by putting fragments of old rusted iron in a vessel filled with water, and renewed as fast as consumed. The second was done in a like manner with a ball of sulphur broken into fragments of the size of a hazel-nut, and put into a vessel filled with water, and renewed as above.

Patients are advised to drink as they may happen to be thirsty, even rather more than what a moderate thirst would require, alternating the waters, allowing no other drink. The iron water, thus prepared, contains, it is seen, a minimum proportion of carbonate of iron in solution, derived from the carbonic acid of the atmosphere, and an appreciable portion of the same salt and of the oxide which remains suspended. This is a common and much used remedy. As to the sulphur water, the use of which is much less general and which is perhaps a remedy peculiarly our own (for we have never seen it ordered by our teachers, or our brethren, nor indicated in books), it soon acquires a decided sulphurous odor and taste, from which we infer that it ought to possess, to a certain degree, most of the properties of the natural sulphur waters.

With patients making use of these artificial waters, there is observed, as with those using the natural waters, a manifest recon-

stituent action, but less energetic, less prompt, and less complete than in the latter. The disease and the convalescence were of longer duration, the restoration of strength and appetite were longer delayed, but, in the end, the results were nearly the same. These differences may be understood from the fact that the artificial iron and sulphur water are very imperfect medicaments compared with the natural waters, which, notwithstanding our knowledge of their chemical elements, are practically secret remedies whose mystery analysis cannot entirely reveal.

In the second stage of the disease, when the indication to recuperate the strength is still more decided, we are accustomed to add to the reconstituents just enumerated, a more positive tonic, the wine of quinine and gentian in doses of three spoonfuls a day. We would extend its use far beyond the extinction of the febrile movement and up to an almost complete return to the normal conditions of health.

Finally, to complement the treatment now detailed, an external remedy may be added to the internal medication, rather hygienic than medicinal, consisting of daily lotions with cold water, over the whole cutaneous surface if possible, or at least over the dorsal region, which in the position of the decubitus sustains the weight of the body and the heat of the bed. These lotions should be effected by means of a large sponge, previously soaked with fresh water and squeezed, passed rapidly and frequently over the skin without wetting the linen or the bed. They serve the double end of cleanliness and of a sedative to cutaneous calorification.

Alimentation should be adjusted to appetite and taste. We are more often required to meet and overcome a want of appetite than to repress its intemperance. We have slight faith in the relapses and deaths attributed to indigestion. We have never seen one in a practice now of twenty-nine years, and during which we have uniformly permitted alimentation to our patients.

Such is the treatment with which for more than eleven years we have combated typhoid fever, and with which in an aggregate of about eighty cases we have lost but three patients, who from circumstances which need not be stated here were not submitted like the others to medication by mineral waters.

The treatment is not entirely new, for which we are thankful; if it were found to be composed only of innovations, it would reasonably excite distrust not only in oth-

ers but in ourselves. In fact, experience cannot be unique in practical medicine; it is a common fund which belongs to all, and to which each personality brings its tribute. It is in this view that we have endeavored to bring our own to the special therapeutics of typhoid fever, by introducing into it the medication by the sulphurated and ferruginous mineral waters, a medication which we take the liberty of recommending to our brethren, with a profound conviction of its great value.

[The author adds to the memoir—"If the Royal Academy of Sciences of Lisbon condescends to receive favorably this first effort, we propose to complete it by a second memoir, which will contain our observations, and the reflections which their study has suggested."]

### THE ABUSE OF THE ALIMENTARY CANAL.

(Concluded from page 124.)

WE will now pass to a consideration of some of the reasons why this long-established custom should be abandoned, and endeavor to state clearly certain objections to the general use of the so-called expectorants in the treatment of cough.

And, first, I wish to insist upon an obvious want of analogy between these remedies and those belonging to some other classes. From what is known of the properties of some articles of the *materia medica*, it is not difficult to define the conditions of their utility, to name the morbid states for which they are, properly speaking, remedies, and to predict, with tolerable correctness, the results which will follow from their use. For instance, if the stomach or bowels be embarrassed by their contents, it would be very natural to expect that benefit would be derived from the action of an evacuant, emetic or cathartic. It is perfectly easy and logical to suppose that stimulants will improve an enfeebled circulation; that narcotics, as producing stupor, can relieve pain; that astringents will control certain hæmorrhages, and favorably modify the circulation, and change the condition of tissues in certain inflammations of the mucous membranes; that alkalis may correct secretions unnaturally acid; that cool applications will reduce excessive heat in any part to which they can be applied; that diaphoretics will restore the suppressed secretion of a dry skin. Absolute rest is an obvious method of di-

minishing the discomforts of an inflamed joint; and utter darkness at once suggests itself as the only means of at once relieving a photophobia produced by any cause.

If we accept the common definition of expectorants as a fair and just statement and description of the characteristics of certain drugs, and if we at the same time remember the nature of cough and recall the numerous and diverse causes which may produce it, I feel very sure that, looking at the subject from a theoretical point of view, no one would believe for an instant that, in the majority of cases, expectorants would possess the slightest value in the treatment of this symptom. For a certainty, antimony will not, except at the price of serious exhaustion, arrest a cough originating in a nervous condition, nor one depending upon organic disease outside of the thoracic cavity. Can it be supposed that senega will relieve a cough produced by an elongated uvula, by a laryngitis, or by a commencing pleurisy? Can sanguinaria be expected to diminish a cough which is associated with gangrene of the lungs? And surely no one would believe, *a priori*, that squills or ipecac could be employed, with any prospect of benefit, against a cough of which a tubercular deposit was the cause. Yet consumptives have undoubtedly swallowed expectorants *secundum artem* in immeasurable quantities for the very laudable purpose, though by a mistaken method, of removing that symptom which in their estimation constitutes the totality of their disease. Let any man of average candor and discernment carefully analyze the facts which I have presented; it seems impossible that he should arrive at any other conclusion than that expectorants are not likely to influence any other than a cough resulting from a simple bronchitis, acute or chronic.

Regarding expectorants in their relation to cough, the presumption would be that they would aggravate it by reason of the necessity arising for the expulsion of a secretion increased in quantity, not to speak of the morbid quality of the product of a diseased surface. Moreover, it would not always be prudent to run the risk of adding to a profuse bronchial secretion which, in the extremes of age, may be a cause of serious embarrassment. It is difficult to believe that expectorants are endowed with any direct or specific power to relieve the air-passages of their contents. It would seem that they must accomplish it, if at all,

either by exciting cough, or through an emetic influence, by means of a sudden, forcible and continued contraction of the thoracic parietes, producing what may be called pectoral vomiting.

Secondly, I wish to urge upon your attention the fact that inasmuch as expectorants have a strong and decided tendency to excite nausea, impair appetite, retard digestion, and to interfere with proper assimilation, they obstruct the normal action of the alimentary canal, they divert it from its all-important uses, they abuse it; hence, when they are resorted to for remedial ends it is in direct contradiction and violation of the most advanced general therapeutic idea of the present day, which is the principle of treatment by nutrition; treatment by methods designed to maintain in a state of the highest possible healthy activity all functions which subserve that process. Although this principle has of late received its most distinct enunciation, it is not altogether new; for Abernethy, more than abreast of his time, in his remarks upon the constitutional treatment of local diseases, insists with particular emphasis upon the value of carefully regulating the condition of the digestive organs.

The modern formula for disease declares it to be a negative condition; a state of deficiency in which some of the elements of health are wanting, and in which the vital force is more or less diminished, and may be reduced down to the point of complete extinction. In disease, the processes of life are embarrassed, feeble and imperfect. Convalescence involves something more than a mere maintenance of the even balance between assimilation and waste as they exist in health: it implies an energetic exercise of the recuperative power; a restoration of lost force; a recovery of lost ground; it is a process of reconstruction and renewal, which imposes an unusual tax upon the nutritive forces. How can any good be derived from measures which, in their nature and operation, are not in accordance with these facts? In disgraceful defiance of them, is the indiscriminate and frequent use of expectorants.

Now let us look at this thing in a somewhat different way, and endeavor, by invoking the aid of a mathematical expression, to offer something approaching to a demonstration of the point under consideration. What determines recovery in any case whatever; what establishes the chances for or against it? Making the most general statement possible, it may be said that the chance of recovery ( $R$ ) is proportional,

directly to tenacity of life, or amount of vitality ( $V$ ), and inversely to intensity of disease ( $D$ ). (And by intensity of disease I mean something more than mere severity of symptoms.) If we render the foregoing statement as concise as possible by reducing it to the form of a mathematical expression, we have— $R = \frac{V}{D}$ ; the value of  $R$  being represented by a fraction, and depending upon the proportion between two elements, which are variable, according to the circumstances of each case.

The ultimate object of medical treatment is to avert or diminish the dangers of disease; to increase to a maximum the chances of recovery. We seek to attain these ends, in part, by the use of drugs, which are not powerless or inactive, and which, to accomplish the purpose intended, must either sustain and increase the vital forces, or they must abate the intensity of disease. Obviously,  $R$  is to be made larger by adding to  $V$ , or subtracting from  $D$ . Lessening  $V$  is equivalent to making an addition to  $D$ , and inevitably reduces the value of  $R$ . It is plain that the advantage gained in any case is not proportional to the diminution of  $D$ , if that diminution is effected by measures which, at the same time, depreciate the value of  $V$ . Expectorants are not inert—they exert an influence; and the question now comes up, are they more likely to affect the numerator or the denominator of the fraction by means of which we state the chance of recovery? Partly in view of the considerations already offered, and partly in anticipation of what I hope to establish under the next head, I shall venture to assert that, as a general rule, expectorants cannot be expected to decrease the intensity of disease, and that they inevitably tend to impair and waste the forces which maintain and prolong life. Hence the absolute impropriety of their use. And, on the other hand, a most careful and assiduous course of tonic and stimulating treatment is imperatively demanded in all those cases in which cough is an alarming symptom, as helping to indicate serious organic disease.

Thirdly, direct experience constantly proves the inefficacy of expectorants, and shows the superiority of other modes of treatment. In this connection we will confine ourselves to the consideration of bronchitis, a disease for which it would seem that expectorants ought to be used with advantage, if they ever have any value. Nothing of any importance is proved by the fact that squills and ipecac are from the outset regularly administered, in ap-



proved doses, to a man who gets rid of an acute bronchitis within twelve or fourteen days. The disease is self-limited, and would soon disappear spontaneously. The processes of disease and medication are going on simultaneously, and a sequence could easily be mistaken for a consequence; the former simply relating to the order of events in time, the latter involving the connection between cause and effect. The only thing established beyond every possible doubt by the fact of a recovery in an acute medical case is, that the patient has not been prevented from getting well by the kind of treatment pursued. So that we must turn to those cases in which the tendency to recovery is insufficient for the purpose, and the disease becomes a chronic one, and hence may be taken as a fair test of the propriety and value of any particular course of treatment. I have repeatedly seen cases which certainly required the aid of a physician's care, and in which expectorants had been thoroughly and persistently used, in large doses and in small ones, but without producing any other effect than, primarily, a gastric derangement, and, secondarily, a reduction of flesh, strength and color, together with a continuation of the disease, which has steadily and successfully improved under a different plan of treatment. Frequently, in former days, I have endeavored in vain by the use of expectorants to modify and relieve the hard, dry, incessant, tiresome cough which habitually attends bronchitis in some individuals. In other words, expectorants utterly fail to exert a remedial influence just in those cases in which it is most needed; and more than this, they are worse than useless, because by their debilitating effects they antagonize and defeat the very object we seek to accomplish. Such are the conclusions which my observation compels me to accept.

Fourthly, the testimony of patients, which is an indirect experience, helps to confirm my belief in the correctness of these conclusions. I often meet people in whom slight causes provoke cough, depending probably upon a sub-acute bronchitis, and disposed to be persistent. They tell me that they have so constantly had recourse to the ordinary cough medicines without any benefit, that their faith in them has now become completely disestablished. By the continued study of their own cases, they are persuaded that for them such a system of medication is worthless.

Fifthly, it may be suggested that some systematic writers seem to doubt whether

the class of expectorants should be recognized as such. In a somewhat old-fashioned book, entitled *Bigelow's Sequel*, certain properties are positively affirmed of emetics, cathartics, caustics, narcotics, &c.; but with an obvious reservation, it is said that expectorants "are supposed to promote the secretion from the mucous membrane of the lungs." And it is to be borne in mind that this book bears the date of a time in which medical faith was firmer than now, and medical scepticism, if it existed at all, had none of the boldness and assurance which have since distinguished it. Quite as much to the point is the following quotation from an editorial note to a work upon *Materia Medica*, published some years since. "The author admits that there are no expectorants which act directly or specifically, and concedes that no medicinal agents are more uncertain in their effects than those arranged under this class." Again, "if there be any form of medication worthy of confidence as directly expectorant, it is not to be found in the introduction of any drug into the stomach."

In his allusion to those who "are never easy until they can get every patient upon a regular course of something nasty or noxious," Dr. Holmes must have had in mind the believers in expectorants. The double epithet admirably fits the class of medicines under consideration.

Venesection has fallen into general disuse; emetics and cathartics are administered with a more sparing hand than formerly; and if it has not already been done, it is quite time for physicians to seriously inquire whether it would not be better to forever abandon the use of expectorants in the treatment of pulmonary affections. And with this, as with all other questions to which our attention may be turned, let it be remembered that the obligations of the whole body bind each one of its members. Let our Profession recognize and study its weakness, and then it may justly claim to know its strength. Let it confess the errors it has committed, and it shall secure increased respect and confidence. Let it make an honest acknowledgment of what it cannot do, and its short-comings shall disappoint none; its greatest benefits will be conferred, and they will be received with grateful satisfaction. Let it resolve to swear blindly in the words of no master; let it discreetly exercise the right of doubting, and faithfully discharge the duty of thinking, and, more than ever, progress shall be its characteristic.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Surgical Cases in the Service of Dr. GEORGE DERRY.  
Reported by Mr. GEO. B. STEVENS, House-Surgeon.

#### *Five Cases of Extensive Injury to the Hands.*

CASE I.—The patient, æt. 17, was thrown from a wagon, striking against a curb-stone. The integument of the right hand was extensively lacerated on the ulnar side, with a compound fracture of the fifth metacarpal bone, on the dorsum, and at the commissures of the fingers; the muscles of the ball of the thumb were much torn; a clean cut wound extended across the wrist from the ball of the thumb to the styloid process of the ulna. The left humerus was fractured just above the condyles.

Sutures were used in the wounds, and the hand laid on a flat splint padded with oakum. For the fracture of the humerus an internal angular splint and a cap splint over the shoulder were used.

During the three weeks following, the sloughs separated and healthy granulations showed themselves. Then erysipelas appeared; the discharge diminished, the granulations became pale and flabby, and much constitutional disturbance manifested itself. The erysipelas disappeared at the end of four days, only to reappear again in a week. Recovering from this he had no further drawback. The splints were removed from the left arm at the end of four weeks, when the union was firm. A baggy condition of the palm of the right hand with much gluing of the tendons remained for some time after the ulcers had all healed, but persistence in the use of the flexors had enabled the patient when he left the house to very nearly close the fingers in the form of a fist.

CASE II.—The patient, æt. 8, caught his left hand in machinery. A compound fracture of the first metacarpal bone was produced, with a lacerated wound of the radial side of the index finger, deep laceration of the muscles of the ball of the thumb and of the muscular fold between the thumb and index finger.

The edges of the wounds were brought together with sutures and adhesive plaster, the latter being also used to keep the thumb close to the radial side of the fore finger. Hand laid in oakum soaked with an aqueous solution of carbolic acid.

The wounds closed rapidly and with very little suppuration, so that in three weeks he

left with them quite healed. The motions of the thumb and index finger were nearly perfect.

CASE III.—The patient, æt. 7, had both hands caught in the block of a pulley. All the fingers of the right hand were crushed, and the integument on both dorsum and palm torn back as far as the ball of the thumb. The thumb itself was uninjured. The ends of the thumb and of the second and third fingers on the left hand were torn off.

Before the patient was brought to the hospital, a surgeon had removed the crushed fingers on the right hand. Some further trimming of the torn tissue was required, and the heads of the last four metacarpal bones were removed with bone forceps. Flaps hardly existed but in name. On the left hand, the last and the head of the middle phalanx were removed from the thumb, and from the second and third fingers; the flaps remaining were scanty and ragged. Cold-water dressing was used upon both hands.

After the removal of the sutures, the wounds were dressed with carbolic acid and castor oil, in the proportion of 3i. of the former to 3viij. of the latter. The flaps, such as they were, sloughed on both hands, but healthy granulating surfaces were left. On the tenth day, pus was evacuated at the lower third of the right fore-arm. Following this, granulation and contraction progressed satisfactorily.

Four weeks after the accident, the patient was still in the hospital. The granulating surface on the right hand was much contracted; movements of the thumb were nearly perfect. On the left hand, the cut ends of the fingers had cicatrized, and the power of flexion of the stumps was very considerable. The stump of the thumb had nearly closed, and its motions, except that of flexion, were unimpaired.

CASES IV. and V.—Two boys, each aged about 15, the one an Hibernian, the other a Swede, within forty-eight hours of each other, in widely different parts of the city, met with very nearly the same injury from machinery.

The former had all the fingers, except the little finger on the right hand, crushed, and more than half of the last phalanx of the thumb torn off. On arriving at the hospital, the fragments of the thumb and fingers were removed—the head of the fourth metacarpal bone being cut off with bone-forceps, while with the index and middle fingers separation was made at the metacarpo-phalangeal articulation. There were

no flaps. The wound was dressed with carbolic acid and castor oil, one part of the former to sixty-four of the latter.

Irritative fever followed, but was of short duration. In a week's time the patient was able to sit up with his hand on a straight splint. There was not one untoward symptom; the wound granulated rapidly. The dressing used at the time of entrance was continued until the last ten days, when the exuberant granulations were strapped. At the end of five weeks the granulating surface was very much contracted, and the patient left the house to be treated as an out patient. The cut end of the thumb had cicatrized, and the thumb itself was freely movable. Aside from a slight contraction of the flexor of the little finger, the motions of the finger were free in any direction.

The Swedish boy had all the fingers of the right hand very much crushed, the thumb itself being uninjured. When brought to the hospital the fingers were hanging by very slight muscular attachments; the second, third and fourth metacarpal bones were fractured; the back and the ulnar side of the hand were much lacerated. The fragments of the fingers and the heads of the last four metacarpal bones were removed. The flaps were pretty abundant, but ragged. But few sutures were used. The wound was dressed with carbolic acid and castor oil, one part to sixty-four.

The fever which followed was inconsiderable. On the fifth day hæmorrhage began from the wound, ceasing, however, spontaneously. On the following day the hæmorrhage was quite alarming, but ceased upon the wound being slit open and exposed to the air. Following the secondary hæmorrhage granulation went on without interruption for three weeks, when erysipelas set in, lasting about a week; a poultice was substituted for the carbolic acid and oil. After the subsidence of the erysipelas healthy granulations reappeared in the wound. The poultice was omitted, and simple cerate used as a dressing. The wound contracted somewhat slowly, but still surely. Six weeks after the accident the patient was still in the hospital, with the wound quite healed except a small portion at the centre, near the site of the heads of the third and fourth metacarpal bones. Motions of the thumb were but little impaired.

*Slough of Scrotum following the Palliative Operation for Hydrocele.*—The patient, aged 58, had hydrocele on the right side for many years, and had been tapped about twenty times. When he entered the

hospital, one week after the last tapping, which was done at one of the city charitable institutions, the scrotum was very much enlarged, the integument of the upper half thickened and reddened, while the integument of the lower half had been entirely removed, leaving the testes covered only with thin membranous tunics, in a sloughing, disorganized condition. Posteriorly was an opening from which offensive pus exuded. In the upper portion of the scrotum on the right side, just below the external ring, was a hard tumor, consisting apparently of the testis and epididymis much enlarged. The patient was anæmic and much debilitated, and had apparently suffered much from privation and lack of proper food. He was ordered wine, tincture of the chloride of iron, and the most nourishing food; the scrotum to be dressed with carbolic acid and castor oil, in the proportion of 3j. of the former to ʒviij. of the latter, and to rest upon a pile of oakum soaked in an aqueous solution of carbolic acid.

During the following ten days the sloughs in the lower part of the scrotum separated, laying bare the testes covered with healthy granulations; the enlarged testis and epididymis diminished in size; the general condition of the patient improved wonderfully. The dressing ordered at entrance was discontinued, and the extensive ulceration strapped with adhesive plaster. Granulation and contraction beneath the strapping went on at first rapidly, then more slowly, but still surely, until at the end of a month the ulcer had nearly closed. The testes were somewhat atrophied. The operation, which was done as a palliative, has doubtless effected a radical cure of the hydrocele.

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*To COOL WATER.*—In order to cool water by evaporation, it has long been the practice in warm countries to wrap a pitcher or other vessel containing the water with a wet cloth, the evaporation from which served to reduce the temperature of the vessel and consequently of its contents. An English manufacturing firm have applied the same principle in a portable refrigerator. The inner vessel for holding the liquid or substance to be cooled is surrounded by an outer one containing water, and closed at the top by a layer of porous textile material. This latter draws up the water by capillary attraction, and the water, evaporating from the upper surface, produces the requisite reduction of temperature.—*Druggist's Circular.*

# Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 23, 1869.

## APOTHECARIES AND PRESCRIPTIONS.

MR. EDITOR,—In view of the fact that we have many careless, incompetent, —————\* apothecaries in our midst, into whose hands our prescriptions are liable to fall, will it not be well for the Suffolk District Medical Society, at its next meeting, to take some action towards preventing prescriptions from being compounded or prepared by incompetent dispensers of medicine? It seems to the writer that the welfare of our patients, as well as our own reputation, demands it. I will suggest the following plan:—Let a committee of six or more physicians be appointed, whose duty it shall be to make inquiries of every regular physician in the District in regard to what he knows concerning the competency, habits, &c., of any of the apothecaries, or their assistants, doing business within the limits of the Suffolk District. Let them also visit, *incognito* or otherwise, every apothecary store, especially the doubtful ones, and learn what they can from observation.

When this has been accomplished, let the Society issue, for the use of its members, prescription blanks, on the back of which are printed the names and location of shop of all such as are believed by the committee to be reliable. Then physicians can instruct their patients to obtain medicines of those whose names may be found on the prescription paper.

If the above or any better plan can be instituted we believe much benefit will arise from it. What think you, Mr. Editor?

I.

We are not quite sure that the action which our correspondent recommends is the wisest which can be taken in the premises. The public adoption of certain pharmacists as reliable dispensers of our prescriptions might possibly be considered as the formation of a "black list" consisting of all those retail druggists who should be excluded from among the faithful. Such a course might prove objectionable from a legal point of view; it might also work injustice in some instances. But, that some

action is loudly called for in the matter, we are fully persuaded. We think the Suffolk District Medical Society, too, should promptly take the matter in hand, and appoint a committee to examine it and report upon the best method of procedure. We consider, however, that such committee should be instructed to confer *in limine* with the Massachusetts College of Pharmacy, and advise with them as to the course to be pursued. That association is full of zeal for mutual improvement, and for the elevation of the standard of pharmacy, and we are confident would rejoice to render us in every way all the aid in their power. Very effectual would be that aid.

The evil of incompetence among apothecaries is a crying one, and we are not disposed to believe it confined to this city. The difficulty and uncertainty of medicine are great enough without having them increased, without having the very foundations of medication undermined, by careless and ignorant dispensers of drugs which have been carelessly selected. To write for the *unguentum hydrargyri nitratis* and have an article put up so loosely flung together that your patient's eyelid is excoriated by free nitric acid, is not precisely agreeable to the sufferer or satisfactory to the physician. Or to prescribe calomel and find your sick man put to sleep forever with corrosive sublimate, does not smooth the pillow of the practitioner. To send for ipecac to relieve an overloaded stomach, with its attendant distress or perhaps convulsions, and be furnished with Indian meal, is to meet with "something in the wrong place." These instances are simply suggestive of hundreds analogous in character which have actually occurred. We have in mind a line of street—not a hundred miles from Boston—some three fourths of a mile in length, well studded with "apothecary shops"; and which yet, in the opinion of one well qualified to judge, does not offer a single establishment of the kind fit to send a prescription to. Whether or not there be much choice for the public between the patent medicines retailed by these dealers, or the doses they compound, it would be perhaps not perfectly easy to decide.

\* Our correspondent here uses a stronger expression.

All this tends to point the argument we adduced some weeks since, to the effect that pharmacy should be re-adopted into, and made a specialty of general medicine, while its votaries are sifted, their numbers reduced, their compensation raised, their obligations, privileges and *esprit de corps* blended with those of the parent profession. But, in the meanwhile, since this reform would necessarily require time for its accomplishment, other measures are demanded to save our patients from imposition and danger—ourselves from mortification and obloquy. Let the Suffolk District Medical Society take the initiative, as above proposed.

Another and temporary expedient we would humbly suggest—simple, but as far as it would go, effectual. A case, of the size of a surgeon's dressing case, will contain a dozen bottles of the capacity used for the homœopathic pellets of sugar of milk, and may have a pocket at the side for powders. It will hold an ample supply of the drugs needed for emergencies, or cases demanding prompt action; *e. g.*, it will carry pills of opium, of morphine, and of purgative materials; powders of sulphate of zinc, of calomel and jalap, of ipecac, &c. When there is time to spare, the request may be made that other prescriptions may be presented to certain designated pharmacists—a request, however, too often unheeded. But we think, in the present condition of things, every physician should be provided with the pocket-case, and should have it filled only by a reliable pharmacist.

It would be most unjust, however, to close these brief remarks, without referring to a kindred topic which touches ourselves. Do we write our prescriptions as we should? If any one thinks there can be but one answer to this question—as there ought to be—let him go and look over the prescriptions filed at any apothecary's. Often indistinct, sometimes *nearly illegible*, are the words he will constantly see in his mind's eye, as he looks over those collections of amorphous bits of paper. We hope, if such a committee should ever be appointed as our correspondent solicits, they will take this grievance in hand and report upon it on the same page which deals with the delinquen-

cies of apothecaries. The preparation of prescriptions calls for as much care from the physician who indites, as from the druggist who puts them up. We were tempted to say that as much forethought should be used in arranging these autographs of great men and little, as if they were blanks for death-warrants, which instruments in cases of error they are liable to become. As the lead pencil is mostly used (and is perhaps for the most part the best thing for the purpose), in writing "the recipe," paper with a suitable surface for taking readily the traces of the plumbago, should be kept in the pocket of the practitioner as regularly as the pencil itself. And, next to accuracy, distinctness should be the constant aim of the writer, just as perspicuity is made a cardinal canon of rhetoric. Furthermore, we hold that students of *Materia Medica* should be systematically trained by their teachers in the art of prescribing, it being made a *sine qua non* that they write prescriptions so clearly that he who runs may read.

Finally, as mistakes will sometimes occur in the hands of the most careful dispensers, to be entirely eliminated only when human imperfection disappears, so errors occasionally get into the prescriptions of the wisest, the most cautious and most distinguished medical men. That these errors have many of them been detected by the pharmacist's keenness, and the physician apprized of them in season to make his correction without the knowledge of his patient, we desire to avow, and to offer therefore those thanks *which have been sometimes neglected*. One of our most skilful and painstaking pharmacists suggests that the dose be always appended to the recipe, as that course, by attracting a second time the attention of both prescriber and dispenser to the quantity of medicine ordered, operates as a check upon the mistakes of either party. It would be well if the name of the physician were also subscribed, to enable the apothecary to confer with him in cases of doubt.

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TRANSFUSION.—This operation has again attracted attention. M. Garnier, in the *Union Médicale*, says that while some resort to it only as the *ultima ratio*, others

make it an ordinary remedy, almost exempt from danger; and even go so far as to recommend it as a preventive measure. Transfusion, he says, means at the present day the injection of blood deprived of its fibrin and filtered. Dr. Albanese he quotes as reporting six cases—two women and four men. In three cases of anæmia followed by hæmorrhage, the patients got well. But, in three others, in whom there was purulent infection, tuberculosis, or septicæmia, the patients died, not of the operation, but of their disease—a result in no wise astonishing. The wonder is that transfusion was done under such circumstances. M. Landois, who, says the writer, has most recently, among the Germans, occupied himself with this subject, has attempted some statistics of transfusion, with the following results, viz. :—

	Cases,	Recoveries,	Deaths,	Results unknown.
Acute anæmia	97	63	31	3
Acute toxic affections, [such as purulent infection, &c.]	10	3	7	
Other diseases,	38	9	20	9
	145	75	58	12

Dr. Gesellius, of St. Petersburg, proposes in transfusion to take blood not defibrinated and still oxygenated. To avoid opening an artery to obtain it, he suggests tapping the capillary system of the skin. The apparatus is to consist essentially of a cupping-glass, a scarificator, an air-pump, a tube, a trochar, &c.

OBITUARY.—Dr. Solomon D. Townsend, of this city, died on Sunday afternoon, after an illness of about 24 hours, at the age of 76 years. Dr. Townsend graduated at Harvard College in 1811, and was a classmate of the Hon. Edward Everett. He entered the naval service of the United States as surgeon, and in that capacity spent three years of his life. He was for many years one of the attending surgeons of the Massachusetts General Hospital, and at the time of his decease was one of the consulting surgeons to that institution. He was also President of the Board of Directors of the Mass. Charitable Eye and Ear Infirmary.

OBITUARY.—Dr. Francis C. Ropes, a promising and esteemed member of the medical profession of this city, died on Wednesday last at the age of 31 years. He had been occasionally troubled with some serious symptoms for a considerable time previous; but the fatal result was not threatened till within a comparatively short time before his death. He had Bright's disease, complicated at the close with pneumonia. He graduated from Harvard College in 1858, and was one of the Surgeons of the Boston City Hospital.

DEATH FROM CHLOROFORM.—Mrs. Emily Banker, wife of John S. Banker, of Hart's Falls, died suddenly at the house of Dr. Z. Cotton, of that place, while under the influence of chloroform, administered for the purpose of extracting her teeth. The doctor, assisted by his brother, administered chloroform in the usual way, and extracted three teeth. The patient came out all right. He gave her a second inhalation, and extracted nearly all the remaining teeth. This time she rallied, and showed no signs of distress. There being two stumps remaining, she insisted on taking it again, and inhaled the third time. Having extracted the remaining teeth, he noticed that respiration had nearly if not quite ceased. He threw her forward to let the blood run out of her mouth, and, finding no symptoms of returning life, laid her on the floor and attempted artificial respiration, but it was of no avail. Coroner Kennedy was summoned next morning, and a jury empanelled. Drs. James Nelson and O. M. Bump were called in, and gave an opinion that death had ensued by asthenia of the heart from the use of chloroform. The jury rendered a verdict that Mrs. Banker died from the use of chloroform, for the purpose of extracting teeth, and that it was judiciously and properly administered, and that no blame can attach to Dr. Cotton. It might be stated, in addition, that her family physician had advised her that it would be safe, as far as he knew, for her to take chloroform."—*Cambridge (N. Y.) Post*, and *Dental Cosmos*.

At the recent meeting of the British Medical Association, the address in midwifery was given by Dr. Beatty, of Dublin. He reviewed the history of midwifery, and staked out, as it were, the ground which it was the business of the modern accoucheur to occupy. Confining himself then to a re-

view of some of the modern improvements in the practice of midwifery proper, he dwelt upon the advantages which had accrued from the use of anæsthetics, of which chloroform was the most conspicuous, and expressed his opinion of the benefits which have followed its employment in natural, difficult, and instrumental labor, the only ill-effect of it apparently being that it tended to favor *post-partum* hæmorrhage. The greatest applause was elicited when he uttered a strong denunciation of the doctrines which recently found expression in the Dialectical Society, and of the audacity of those who invoked the co-operation of a respectable Profession in their base endeavor to place a limit upon the increase of families.—*Medical Times and Gazette*.

**HUMAN REMAINS IN GLACIERS.**—We have recently obtained a specimen, lately deposited by Dr. John W. Ogle in the Museum of St. George's Hospital, of considerable interest. It consists of the thumb of a man, supposed to be one of the guides lost in the year 1820 in making an ascent of Mont Blanc, which was brought to light more than forty years afterwards. The preparation is the gift of J. Snowden, Esq., a barrister of the Temple, who writes the following description of its discovery. He says:—"In the year 1862 I was crossing the Glacier des Bossons, near Chamounix, and found protruding from the ice a man's arm; the flesh was quite firm and white, the thumb in question was lying severed just outside the hole, and just beneath the surface of the ice I found several finger-nails, hair, part of a leathern knapsack, a cork, &c. The arm was pretty confidently identified as having belonged to Fairraz, one of the guides who was swept away forty years before at the top of the glacier whilst making the ascent of Mont Blanc with Dr. Hamel. The appearance of fragments of their bodies was not unexpected, as Dr. Forbes, from his calculations as to the movement of the glacier, had predicted that portions of the remains would probably be found in that very year."—*Ibid*.

**ELECTROLYTIC CURE OF A MALIGNANT TUMOR.**—Dr. W. Neftel reports in the *Medical Record* a case of cancer apparently permanently cured by electrolysis. The patient, a gentleman aged 58, was operated upon by Dr. Sims for a carcinomatous tumor in the left mammary region last year. Soon after the operation the axillary glands of the same side became enlarged, and were removed by the same surgeon. Shortly

afterwards, a new scirrhus tumor appeared in the right mammary region, and speedily attained the size of an orange. Further extirpation being clearly contra-indicated, Dr. Neftel proposed electrolytic treatment, expecting therefrom merely local benefit. He says:— \* \* \* \* \*

A month after the first sitting the tumor was found a great deal softer and smaller; at the end of the second month it had almost disappeared, and a fortnight later no trace of it remained. The general condition of the patient is now in all respects excellent, and new deposits can nowhere be detected."—*Medical Gazette*.

**HEALTH OF THE EMPEROR OF THE FRENCH.**—Several of our correspondents in Paris allude to the rumors respecting the health of the Emperor, but they differ widely in their opinions.

The Emperor has stone, says one, and will not let Nélaton crush it, as he was unsuccessful in the case of Niel, and His Majesty is very superstitious. Another says the Emperor suffers from gravel, causing him much pain in the loins, and once or twice hæmaturia. The emperor is not very ill, declares a third; he has lumbago and other rheumatic pains, and has for years been subject to piles.

Our readers will readily understand these varying rumors as arising from such symptoms as could not be concealed, but are common to each proffered explanation. We may allude to a more probable conjecture by one who avers that none of the papers know anything about it, but believes that the official contradictions as to the Emperor's danger may be reconciled with what is known of the treatment pursued, by the supposition that an enlarged prostate is the cause of the trouble. This would not be unlikely, considering the advancing age of the Emperor, and would not imply danger. On the other hand, the Emperor suffered from gravel several years ago. Those in attendance give no information whatever, so that it is impossible for newspaper correspondents to give more than rumor and conjecture.—*Medical Press and Circular*.

**FEMALE MEDICAL STUDENTS IN PARIS.—FRENCH METHOD OF DRESSING WOUNDS.**—The Paris correspondent of the *London Medical Times and Gazette* says:—

We too, here in Paris, have two women studying medicine—one a yankee lady from Massachusetts, the other a Russian, I believe.

Whenever physicians with a foreign di-

ploma wish to pass their examinations so as to receive the degree of Doctor of the Paris Faculty, a demand must be made to the school, whence, if accepted, it passes to the Minister of Public Instruction for approval. The first application of this kind made by one of these women to the Faculty was energetically and unanimously refused. But this did no good; the Minister overruled the Faculty and decided otherwise. How encouraging it must be to the lovers of women's rights to witness, for instance, as I have, one of these ladies by the side of a patient in the hospital suffering from stricture of the urethra, and the *interne* asking her to pass the catheter! This is elevating woman!

I had the pleasure of meeting Professor Pirrie, of Aberdeen University, here a few days ago. The Professor expressed great astonishment at the manner in which the French dress wounds. He had witnessed an amputation of the thigh the day previous at the Charité, and the surgeon, instead of attempting union by first intention, had stuffed the wound, down to the bone, with lint and cotton.

This is a practice which, I believe, astonishes every one coming to Paris. Yet, in answer to the question, "Why do you not try union by first intention?" we are told by all, "Impossible! Accidents (*i.e.* pyæmia) are sure to follow."

In order, however, to show Professor Pirrie some surgery more in conformity with English views, I invited him to accompany me the following day to see the hospital tents which M. Lefort, Surgeon to the Cochin Hospital, has had constructed. Wounds here were differently treated, and looked different. No other dressings than cold water, or this and alcohol or carbolic acid, are used—no fatty substances, no salves, no ointments, no healing bandages. There is a sponge for every patient, and the greatest cleanliness is observed. Thanks to these precautions, the Cochin Hospital—not only the tents—has had less accidents than any other in Paris, and for the last two years, since M. Lefort has had charge of the surgical wards, not a single case of erysipelas has occurred.

The largest tent, of which at some future day I may send a description, contains eighteen beds. These tents are a great step onwards, and I think a year or two will prove why pyæmia is so prevalent in our hospitals.

ERYSIPELAS AFTER VACCINATION.—J. Harmer Smith, M.R.C.S., L.S.A., in a letter to

the Editor of the London *Medical Times and Gazette*, writes as follows:—

A case occurred under my own observation many years ago confirmatory of the judgment of Dr. Ballard, expressed in the letter which you published on Saturday, that it by no means follows in cases in which erysipelas succeeds vaccination that it is the fault of the vaccinator. In this instance, which occurred in Sheffield when I was a public vaccinator there, the child was a year old, stout and florid, and was vaccinated on August 12, 1850. The vaccination was successful, and there was nothing peculiar about the case, until on the ninth day I noticed that the areola was larger and more inflamed than usual. When I saw the child again, on the day but one after, there was phlegmonous erysipelas extending to the elbow. The inflammation then rapidly spread till it had covered the greater part of the body, and the patient died on August 30, or the eighteenth day of vaccination. Several other children were vaccinated successfully at the same time, with the same lancet and from the same child, but the disease in each of them was perfectly normal and uncomplicated.

I saw no other case of erysipelas following vaccination, but the late Mr. Reedal, then in extensive private practice in Sheffield, afterwards told me that he had several cases of erysipelas following vaccination about the same time as mine (all of which, however, recovered), from which I inferred at the time that there was present what has been called "an epidemic constitution of the atmosphere."

There is a case of erysipelas after vaccination quoted in the *Medical Times and Gazette* of July 20th, 1861, from the *Gazette Hebdomadaire*, as having been related at the Société de Chirurgie. The remarks cited by you from the discussion which followed are, I think, worth reproducing at the present time:—"M. Robert and various other members expressed their opinion that the chances of consecutive inflammatory accidents would be diminished if much larger intervals were left between the punctures than is generally the case. M. Girdès, agreeing in this precept, still thought that more importance should be attached to the condition of the health of vaccinated infants; for in the Children's Hospital, the inmates of which manifest great morbid aptitudes, phlegmonous erysipelas is not rare, even after the most carefully executed vaccinations."

I may mention, in connection with the case which I have related, that whilst I was



a public vaccinator to the Sheffield Union I vaccinated, on a rough estimate, about 10,000 children; but the above-mentioned was the only case in which I had reason to believe that erysipelas or any other disease resulted from the vaccination.

**SELF-CONSTITUTED TREATMENT OF LUNATICS.**  
—It is so notorious that patients afflicted with insanity are so much better cared for in asylums provided for the purpose, that it seems strange that in this age of enlightenment there should be found persons so misguided as to attempt to treat such cases in their own homes. We have, however, good reason to believe that much of this is being done, and we are reminded by a recent melancholy case of suicide that more stringent measures are needed to prevent the practice. The case in point is that of a lunatic who was confined for some time in the home of one of his relatives, but who escaped one night, and was found drowned in a neighboring pond in the morning. It would be hard to judge which was the most insane of the two, the self-constituted keeper or the poor unfortunate patient.—*N. Y. Medical Record.*

**HEAT FROM THE MOON.**—A long-voiced question—one which astronomers and physicists have labored and puzzled and even quarrelled over for two centuries at least—has at length been set at rest. Whether the moon really sends us any appreciable amount of warmth has long been a moot point. The most delicate experiments had been tried to determine the matter. De Saussure thought he had succeeded in obtaining heat from the moon, but it was shown that he had been gathering heat from his own instruments. Melloni tried the experiment, and fell into a similar error. Piazzi Smyth, in his famous Teneriffe expedition, tried the effect of seeking for lunar heat above those lower and more moisture-laden atmospheric strata which are known to cut off the obscure heat-rays so effectually. Yet he also failed. Professor Tyndall, in his now classical "Lectures on Heat," says that all such experiments must inevitably fail, since the heat rays from the moon must be of such a character that the glass converging-lens used by the experimenters would cut off the whole of the lunar heat. He himself tried the experiment with metallic mirrors, but the thick London air prevented his succeeding.

The hint was not lost, however. It was decided that mirrors, and not lenses, were the proper weapons for carrying on the attack. Now, there is one mirror in existence

which excels all others in light-gathering, and therefore necessarily in heat-gathering, power. The gigantic mirror of the Rosse telescope has long been engaged in gathering the faint rays from those distant stellar cloudlets which are strewn over the celestial vault. \* \* \*

At enormous cost, and after many difficulties had been encountered, the Rosse reflector has at length had its powers more than doubled, by the addition of the long-wanted power of self-motion. And among the first-fruits of the labor thus bestowed upon it, is the solution of the famous problem of determining the moon's heat.

The delicate heat-measurer, known as the thermopile, was used in this work, as in Mr. Huggins's experiments for estimating the heat we receive from the stars. The moon's heat, concentrated by the great mirror, was suffered to fall upon the face of the thermopile, and the indications of the needle were carefully watched. A small but obvious deflection in the direction signifying heat was at once observed, and when the observation had been repeated several times with the same result no doubt could remain. We actually receive an appreciable proportion of our warmth-supply from "the chaste beams of the wat'ry moon." The view which Sir John Herschel had long since formed on the behavior of the fleecy clouds of a summer night under the moon's influence was shown to be as correct as almost all the guesses have been which the two Herschels have ever made.

And one of the most interesting of the results which have followed from the inquiry confirms in an equally striking manner another guess which Sir John Herschel had made. By comparing the heat received from the moon with that obtained from several terrestrial sources, Lord Rosse has been led to the conclusion that at the time of full moon the surface of our satellite is raised to a temperature exceeding by more than 280° (Fahrenheit) that of boiling water. Sir John Herschel long since asserted that this must be so. During the long lunar day, lasting some 300 of our hours, the sun's rays are poured without intermission upon the lunar surface. No clouds temper the heat, no atmosphere even serves to interpose any resistance to the continual down-pour of the fierce solar rays. And for about the space of three of our days the sun hangs suspended close to the zenith of the lunar sky, so that if there were inhabitants on our unfortunate satellite, they would be scorched for more than seventy consecutive hours by an almost vertical sun. \* \* \* —*Spectator.*

## Medical Miscellany.

**LARGE HYPERTROPHY OF THE BREASTS.**—In the clinical records of the Jervis-Street Hospital, Dublin, published in the *Medical Press and Circular*, is a report of a case of enormous hypertrophy of the breasts, necessitating removal of one organ; the operation followed by the reduction in size of the remaining breast. The patient, aged 20, an unmarried girl, of delicate appearance, was admitted into Jervis-Street Hospital under the care of Dr. McSwiney, on April 7th, 1869, suffering from enormous enlargement of both breasts.

She had always menstruated regularly, and enjoyed good health, but had scarcely any development of the mammary glands until about a year before her admission into hospital. The breasts then suddenly began to grow large, her changes meantime occurring regularly, and her general health remaining good. About six months after the first commencement of their growth, the breasts became so large as to cause her much inconvenience, owing to their great size and weight.

When admitted, the breasts were found greatly enlarged, elongated and dependent; their surface was smooth and regular; the nipples were scarcely visible; and careful examination revealed that there was evidently present a simple hypertrophy of the mammary glands. The patient was in a very exhausted condition from the constant dragging and weight of these enormous masses, which were so large as to interfere with her activity, and prevent a healthy amount of exercise. She had previously been under the care of several hospital surgeons, who had not succeeded in affording her relief, and the hypertrophy continued to increase.

**BLEACHING SPONGES.**—The white sponges seen on the stands of our street peddlers, are bleached in the following manner:—The softest, finest specimens are selected, and the sand removed from the cavities by shaking; they are then washed in hot water, and, after squeezing out the water, are placed in a bath of dilute hydrochloric acid, and allowed to remain for half an hour. They are then taken out, and, after another washing in hot water, are placed in a fresh bath of the dilute acid, to which has been added six per cent. of dissolved hyposulphite of soda, and there allowed to remain twenty-four hours. The sponge is finished by washing in water, and drying.—*Medical Record*.

**NEW PROPERTY OF GUN-COTTON.**—According to the *Chemical News*, it is possible to burn gun-cotton in the palm of the hand without the least danger; a delicate balance, in the pan of which gun-cotton is exploded, does not swing from its poise. The same quantity of gun-cotton, if it be pressed into a cavity, explodes with a force equal to that of nitro-glycerine, and ten times greater than that of gunpowder, provided it be ignited by percussion, in the same way as nitro-glycerine.—*Druggist's Circular*.

**A DEATH** from chloroform is reported in Pittsburgh, in the practice of Dr. John Dickson. The

patient was about to submit to amputation of the leg, but died about one minute after the anæsthetic was administered.—*Med. and Surg. Reporter*.

**NOTICE.**—A translation made by us from the *Gazette Hebdomadaire* and headed "Cholera versus Cleanliness," is copied word for word by a New York Journal and no credit given. Likewise "sundry small items not charged."

## MEDICAL DIARY OF THE WEEK.

**MONDAY, 9, A.M.,** Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
**TUESDAY, 9, A.M.,** City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
**WEDNESDAY, 10, A.M.,** Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
**THURSDAY, 9 A.M.,** Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
**FRIDAY, 9, A.M.,** City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
**SATURDAY, 10, A.M.,** Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—Communications accepted:—Intermittent Fever successfully treated by Iodide of Potassium, &c.—Review by N. F.—Watermelon vs. Diarrhoea, No. IV.—Bilateral Paralysis of Abductors of Vocal Chords.

**BOOKS AND PAMPHLETS RECEIVED.**—A Treatise on the Diseases and Surgery of the Mouth, Jaws and associate Parts. By James E. Garretson, M.D., D.D.S. Philadelphia: J. B. Lippincott & Co.—The Ninth Annual Publication of the Massachusetts Eclectic Medical Society, for the year ending June 4, 1869. Pp. 56.—Rules for the course to be followed by the By-standers in case of Injury by Machinery, when Surgical Assistance cannot at once be obtained. Prepared by John H. Packard, M.D., Philadelphia, Pa. (Chart).—A Pseudo-Critic unmasked in a Review of the Writings of E. S. Gaillard, M.D., Ex-Professor of three Medical Schools. By T. S. Bell, M.D., Professor of the Science and Practice of Medicine in the Medical Department of the University of Louisville, Ky. Pp. 36.—Transactions of the Medical Society of the State of Pennsylvania, at its Twentieth Annual Session, held at Erie, June, 1869. Pp. 312.

**MARRIED.**—At Providence, R. I., Frank W. Brigham, M.D., of Shrewsbury, Mass., to Miss Alice R. Bates, of Providence.

**DIED.**—In this city, 15th inst., Francis Codman Ropes, M.D., 31.—19th inst., Solomon D. Townsend, M.D., 76.—At Deerfield, N. H., 18th inst., Dr. Israel Gale, 70.

**DEATHS IN BOSTON** for the week ending September 18, 120. Males, 64—Females, 56.—Accident, 4—anaemia, 1—congestion of the brain, 2—disease of the brain, 3—cancer, 1—cholera infantum, 21—cholera morbus, 1—consumption, 20—convulsions, 2—croup, 4—debility, 1—diarrhoea, 6—dropsy, 2—dropsy of the brain, 1—dysentery, 1—encephalocele, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 1—typhoid fever, 4—disease of the heart, 7—infantile disease, 4—intemperance, 1—disease of the lungs, 6—marasmus, 8—neuralgia, 1—old age, 2—paralysis, 1—premature birth, 4—puerperal disease, 1—scrofula, 1—tetanus, 1—unknown, 4—whooping cough, 1.  
 Under 5 years of age, 64—between 5 and 20 years, 6—between 20 and 40 years, 26—between 40 and 60 years, 13—above 60 years, 12. Born in the United States, 90—Ireland, 17—other places, 11.

THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, SEPTEMBER 30, 1869.

[VOL. IV.—No. 9.]

Original Communications.

CASE OF BILATERAL PARALYSIS OF THE  
ABDUCTORS OF THE VOCAL CORDS  
IN A CASE OF SYPHILIS.

Reported by F. I. KNIGHT, M.D., one of the Physicians  
to Out-patients at the Boston City Hospital.

On the 9th of August, 1869, a patient was referred to me by Dr. Ropes, one of the visiting surgeons to the Hospital, to ascertain if a tracheotomy tube which had been inserted five months previously, on account of excessive dyspnoea, could with propriety be removed. I recognized the patient as one whom I had treated, in September, 1868, for syphilitic affection of the mucous membrane of the larynx.



On laryngoscopic examination, the vocal cords were seen to be both lying near the median line. On respiration, there was no rotation of the arytenoids outwards, and the cords remained near the median line.

The voice was loud, somewhat hoarse. On phonation, the cartilages of Santorini both moved, but only the left cord, which was closely approximated to the right, and both were set in vibration by the expelled air. There was no ulceration or swelling, or other sign of inflammation in the larynx.

The affection which caused the dyspnoea, necessitating tracheotomy, and which of course would necessitate the longer wearing of the tube, was evidently paralysis of the posterior crico-arytenoid muscles.

The history of this patient, as obtained in September, 1868, was as follows:—

—, male, age 36, ship-carpenter by trade. Sent to me by Dr. R. M. Ingalls, of East Boston.

*Family History.*—Father died of "paralysis"; mother of disease not known. They

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had six children, all of whom are living, and well as far as is known to patient, but he has not seen some of them for eight or ten years.

Patient had good health when young. He had measles in 1850, and typhoid fever in 1857, from both of which he fully recovered. He had gonorrhoea in 1854, lasting four or five months; had urinary fistula. At this time had also "little ulcers" on penis, "which never troubled him," and healed readily. He remembers having swellings in groin at this time. Six months afterwards, he had an eruption on head. At intervals since then he has had an eruption on his body, and rheumatism. He has occasionally had sore throat, and much frontal headache. He served in the U. S. Army throughout the late war, and enjoyed good general health.

One year ago, that is in September, 1867, he began to fail in strength; his muscles began to get flabby. In December, 1867, his voice began to be hoarse. Since then he has been much reduced in flesh and strength, though for the past two months he has been gaining somewhat in the country. He has done no work since February, 1868. He has no cough. Appetite good. Is not in the habit of taking stimulants. No dyspepsia. Bowels regular. Micturition free. Patient of light complexion, sandy hair and beard; not emaciated. Pulse 90, soft, not very strong. Voice very hoarse.

On laryngoscopic examination at this time, the left vocal cord and left ventricular band were found to be much congested and swollen.

I ordered him potassii iodidi gr. xv. ter die, a generous diet, and began making applications of tinct. iodinii co. and glycerine to the left cord and ventricular band. His voice improved for a week, when he presented himself laboring under a severe cold, with stiff neck, sore throat, &c. He went into the English Provinces, and I saw no more of him until he presented himself at the hospital, Aug. 9th, 1869.

Paralysis of the respiratory muscles on each side of the larynx is fortunately quite

[WHOLE No. 2170.]

rare. The cause of it is usually not easily determined; but when it occurs simultaneously on both sides, it may be suspected to be of central origin. In this case we may suspect a syphilitic tumor at the origin of the nerves sending those motor filaments to the pneumogastric which supply the respiratory muscles.

The prognosis is unfavorable, but there is a possibility that a syphilitic growth, *e. g.* a gummy tumor, might disappear under specific treatment. To make sure that this had not already taken place, and left the muscles paralyzed from disuse, I made repeated applications of electricity, with no beneficial result. The application of electricity of any kind in a case like this would be extremely hazardous, unless tracheotomy had previously been performed.

### "WATERMELON *vs.* DIARRHŒA." OTHER CASES.

By B. E. COTTING, M.D.

HAVING had occasional experience in times past in the practice above indicated, as recommended by Drs. Webber and Buckingham in papers which I found on my table on return from a recent short vacation, I readily recurred to it as opportunity offered in the following cases.

I.—An advanced gentlewoman, taken Friday night, Sept. 3d, with prostrating diarrhœa, was, on Saturday, P.M., advised to take very freely of the pulp of ripe watermelon. She did so, eating as much as she could possibly get down. During Saturday night she had five dejections—the last being very small, about 6, A.M., of Sunday. She kept her bed Sunday, without discomfort, except a feeling of weakness. Monday, she had a natural dejection, and no further disorder.

II.—A middle-aged gentleman, taken Saturday, Sept. 4th, with cholera morbus, and brought home from his place of business. Seen at nightfall; vomiting frequent and diarrhœa urgent. Watermelon directed as above. Directions followed, but he also continued to take the melon in small quantities every few minutes during the night, to assuage thirst. He vomited but once after it was taken, and the diarrhœa ceased during the night.

III.—A young woman, who, for several days, had suffered severely from diarrhœa which had not been controlled by opium freely taken, and other remedies, being unable to sit up any longer, took to her bed, Sept 6th, and asked professional advice.

Watermelon directed, as in the previously described cases. She took it repeatedly in pretty large quantities in the night and day following. Feeling no relief, she sent again at evening, but before the messenger returned she had a large dejection, which she said seemed to remove all the difficulty. From that moment convalescence was uninterrupted.

IV.—An older gentlewoman, the head of the same family as the last, afflicted at the same time, in a similar way though less severely, was relieved in about half the time of the other, after taking watermelon.

V.—A young gentleman, attacked in the night of September 12th, with severe vomiting and purging, which continued into the 13th, was advised to take watermelon, and took a large quantity. The disorder ceased in P.M., and the next day, Sept. 14th, he returned, well, to his business.

VI.—A grandmother, much depressed by attending upon sick children, returned home with distressing diarrhœa Sept. 13th. The next day, was directed to take watermelon, and consumed large quantities between the middle of that day and the morning following. After this she had no further diarrhœa.

VII.—A rather feeble young woman, after several days' suffering with frequent loose, "bilious" operations, took, as directed, in the evening and night of Sept. 15th and on the morning of the 16th, three separate meals of watermelon alone. In the afternoon of the 16th she had a full dejection, and no diarrhœa afterwards.

VIII.—A young matron, who had had repeatedly recurring attacks of diarrhœa, and had tried without avail laudanum and other common remedies, was at last obliged to take to her bed, and then, as advised, ate in course of the night of Sept. 16th to 17th about "a cubic half-foot" of watermelon pulp. This was followed by a free dejection, "quite different from the previous ones," before noon of the 17th, and subsequent complete relief.

IX.—A young gentlewoman, on her return from a fatiguing journey, was taken in the night of Sept. 17th with diarrhœa, accompanied with constant nausea, which greatly increased on every attempt to rise from the bed. In the afternoon of the 18th, these symptoms increasing, she was advised to take watermelon pulp, which she did until she was "full." It was repeated at bed-time, and again in the morning following.

She said that the nausea was at once and decidedly relieved by the watermelon, and,

after a free defecation on the 19th, she had no further diarrhoea.

For obvious reasons, only those cases have been cited in which watermelon was the only treatment.

If these are cases of *post hoc*, as they may be, relief came immediately *after* a much pleasanter and less injurious treatment than often resorted to in such complaints, and their histories may furnish fruitful suggestions to the considerate and thoughtful practitioner who may wish to avoid "Abuse of the Alimentary Canal."

### PRIMARY DRESSINGS AFTER AMPUTATIONS.

By T. H. SQUIRE, M.D., Elmira, N. Y.

IN the Boston Medical and Surgical Journal for Aug. 19, 1869, some surgical cases occurring in the service of Dr. Geo. Derby, Boston City Hospital, are reported by Mr. Geo. Stevens.

The title of the first case is—"Amputation of the Thigh for Injuries; Death from Pyæmia."

In speaking of the dressing, the reporter says:—"The skin of the flaps was extremely tense. Nine ligatures were applied, the flaps brought together with silk sutures, and the face of the stump covered with a cold compress and a tight bandage. \* \* \* Three days after the operation, the sutures were removed; the edges of the flaps were then looking black and sloughy. \* \* \* For a little more than three weeks everything went on as favorably as could be expected; a large abscess formed on the outer side of the thigh, but incisions evacuated it; the sloughs of the flaps separated, and the face of the stump presented a healthy granulating surface. \* \* \* On the twenty-fifth day after the operation, the patient was seized with a severe chill in the morning, and again in the afternoon. One week later he had another chill, vomiting, diarrhoea, and pain in the abdomen, which was somewhat tympanitic. \* \* \* In two days more the discharge from the stump had nearly ceased, and its face presented a dry, shiny appearance. He died the next day."

The title of the second case is—"Amputation of Thigh for Chronic Disease of the Knee-joint; Death from Pyæmia."

"The thigh was amputated at the lower third, by the circular method. An unusual number of vessels required ligatures. Silk sutures; cold compress; tight bandage. In two days the bandage was removed; the flaps were in perfect apposition, with no

tension of the sutures. Three days later, the patient had a severe chill; the removal of the sutures let out a considerable amount of thin, watery pus. On the following day he had another chill. He continued to fail during the next three days, and he died on the ninth day after the operation."

Now, there are surgeons who, if called upon for an opinion in relation to the surgical dressings in these two cases, would say that they were directly calculated to favor the results which followed. There are those who believe we cannot, in such cases, entirely close the flaps over the sawed extremity of bone, with its injured medulla, apply a tight bandage, and then reasonably expect the whole to adhere and progress to a favorable termination, without any suppuration, granulation, or discharge. Surgeons, whose teaching, reflection and experience have led them to this belief, would recommend that, in amputating the thigh at the lower third, the operator, with a scalpel, first make two symmetrical, tegumentary flaps, sufficiently large to cover the included tissues, without strain or tension, and that, after circular division of muscles and bone, these flaps, with silver pins, be accurately adjusted throughout two thirds of their extent, the other third being allowed to gape freely; and that, with plasters to complete the design of the pins, no other dressings be applied, save an evaporating cloth frequently wet in cold water—the stump during the process of healing being gently supported by a concave cushion, to favor union by first intention, to the extent desired; and, also, to favor union, by second intention, in the remaining part of the wound. The results in this mode of operating and dressing are usually very favorable.

If the surgeons of the Boston City Hospital sanction the complete closure of the flaps and the application of a tight bandage, in cases like those under consideration, they can, doubtless, refer to some lucid defence of the doctrine in standard authority, or bring forward statistics in support of the practice. Until such vindication is produced, it is believed that surgeons will prefer to leave the flaps gaping at one angle of the wound, and to dispense with all tight dressings.

**IODINE GARGLE.**—M. Cullerier prescribes the following in syphilitic ulceration of the mouth and throat, and in æzema;—Iodide pot. 1 part, honey syrup 30, and decoction of barley 120 parts.—*Union Médicale*.

## Selected Papers.

### CASE OF CALCULUS SUCCESSFULLY REMOVED FROM A CAVITY IN THE KIDNEY.

By THOMAS ANNANDALE, F.R.S.E., Lecturer on Surgery, Edinburgh.

MR. S., *æt.* 42, recommended by Dr. James Forrest, of Stirling, came to my house on the 9th of April, 1869, on account of a small fistula in his left loin. The patient gave me the following history of his case: One year ago he felt, for the first time, a slight pain in his left loin, which occasionally passed down into his abdomen; was never severe, and was usually relieved by rubbing the part with a little laudanum. A few months after the first pain a swelling formed in his left loin, and was opened by Dr. Forrest, with the result of giving exit to several ounces of healthy-looking pus. The wound remained open, and continued to discharge pus, but he suffered no inconvenience, and only had an occasional slight pain in the loins. There were never any urinary symptoms, nor was there at any time any blood, mucus or pus in his urine. No urine ever passed through the fistula. Three months after the abscess was opened a small calculus, of a triangular shape, passed through the wound, and a few days after Dr. Forrest removed some small gritty particles from the margins of the sinus. One month after this the wound had healed, but required again to be opened, and some more portions of soft calculous matter were extracted. After this the wound contracted very much, and no more calculi passed; but as the sinus still remained open, at the end of several months my advice was asked on the case.

An examination of the patient showed a small sinus, with a depressed orifice, situated in the left loin, about three inches from the spines of the vertebrae, and immediately below the last rib. There was no swelling or enlargement of the surrounding parts, and no tenderness on pressure. A fine probe, introduced into the sinus, passed down for a depth of three inches, and after a little search its point struck a hard body, which was, without doubt, a stone. Being anxious to ascertain more surely the size and position of the calculus, I proposed to the patient to enlarge the sinus, in order to get my finger introduced. He at once consented, so, having freely incised its superfi-

cial margins, I was enabled to get the point of my finger into the sinus, and then, partly by dilatation and partly by cutting, I succeeded in touching the stone, but not until the entire length of my finger had been passed into the wound. The stone lay in a cavity, which appeared to communicate with the sinus by a limited opening, as a considerable portion of the stone was felt to be covered by a soft membranous substance. From the depth of its situation, and from the feel of the surrounding parts, I felt very certain that the stone was lying in a cyst or cavity of the kidney itself. Having proceeded so far, I determined to extract the stone, and accordingly enlarged the wound freely, carefully cutting the deeper portions with a probe-pointed bistoury. A pair of dressing forceps was then introduced, and the stone readily seized, but it seemed to be caught at one or two points, and would not leave its cavity. After one or two attempts, however, I managed to lay hold of the stone obliquely, and to draw it out. The patient, who had complained of great pain in the abdomen while I was touching the deeper part of the wound, bore the operation with great fortitude, and after a few minutes went to a friend's house in a cab. Next day he returned home to Stirling, and, although he was feverish and suffered from pain in the abdomen for a few days, he made a good recovery, and was soon back again to his employment as a photographer. Two days ago (June 1st), I received a letter from my patient to tell me that he had been at his work regularly for the last three weeks, and that the wound was rapidly closing. He has no pain or uneasiness of any kind now.

The stone removed is represented of natural size [wood-cut omitted.—*Ed.*]; it weighed seventy-two grains, was of an elongated shape, and had two branches or processes at one end, and a third process springing from its body. Its length was one and a half inches, and its diameter at the thickest portion was a little more than half an inch. Externally the stone was white in color, but here and there a brown hue showed itself through the external layer of phosphates. A section showed a nucleus the size of a small pea, of a dark brown, almost black color. Outside this the color was a lighter brown, and the structure was arranged irregularly and in many lines. Here and there the section showed distinctly an outer thin layer of phosphates. Dr. Arthur Gamgee was good enough to analyze

the stone for me, and the following is his report :—

*Constituents in 100 parts.*

Phosphate of calcium, magnesia and ammonium . . . . .	14.20
Oxalate of calcium . . . . .	73.35
Organic matter and moisture . . . . .	12.45
	100.00

*Remarks.*—This case is an interesting example of one of the results which occasionally follow the formation and lodgment of a calculus in the kidney. From the composition, shape, and situation of the stone, there is little doubt that it had formed in the kidney, and had given rise to changes in the structure of that organ, such as have been described by Sir B. Brodie,\* Prout,† Rayer,‡ Johnson,§ and other authors, and to the abscess and consequent fistula.

Abscesses forming in connection with renal calculi have given rise to fistulous openings in other situations than the loins. Rayer,|| referring to renal fistulæ, says:—"These fistulæ, caused in most cases by the presence of one or more stones in the pelvis or ureter, may open into the cellular tissue external to the peritoneum, into the external lumbar region or near the crural arch, into the colon or duodenum, into the cavity of the peritoneum, or, lastly, into the pleura or lung corresponding to the affected kidney."

When Demonstrator of Anatomy in the University, in the year 1864, my attention was directed to a male subject, about fifty years of age, which had several small fistulous openings in the right loin. These fistulæ passed down in the direction of the right kidney, and small portions of the last two ribs had been absorbed. The right kidney was found to be hollowed into a cyst, and in it lay the calculus. I could obtain no history of this case, but feel sure that the stone could have been removed with safety during life.—*Medical Press and Circular.*

THE OXALATE OF CERIUM IN DYSPEPTIC VOMITING.

By S. A. LUCAS, L.R.C.P. & S. Edin., Kirkdale, Liverpool.

I FULLY agree with Dr. Curran as to the beneficial effects of the oxalate of cerium in the nausea of pregnancy. I have employed it for vomiting from various causes, with good effect. I have had a case lately of dyspeptic vomiting, where its *tonic* and

*sedative* effects were well marked. The patient, a married lady, had been attended by a doctor for two months, suffering from severe vomiting many times in the day. The doctor tried many remedies—bismuth, chlor. potass., lime-water, creasote, hydrocyanic acid, &c.—without giving relief to the patient; he gave the case up. I was sent for, and found the lady suffering from facial neuralgia, as well as the vomiting. I prescribed a liniment to be applied to the face (equal parts of lin. chloroformi and lin. belladonnæ), and put her at once upon—

R Cerii oxal., gr. xxxvj.

Ext. hyos., gr. xxiv.

Div. in pil. xij. ; cap. j. ter in die.

For two days afterward she had no vomiting; on the third day she vomited once, which I believe due to her having eaten potatoes (quite against my prescribed regimen). I made her go out for a short walk every day, and by the end of the week vomiting and neuralgia had disappeared, and her health rapidly returned.

It may be seen from this that the oxalate of cerium in its maximum dose (gr. iij.) effected a cure where all other well-known remedies failed; and I hope the profession will give an extended trial to a drug that has not received the attention it merits since its introduction by Professor Simpson.—*Ibid.*

Bibliographical Notices.

*Report of the Trial of Samuel M. Andrews, Indicted for the Murder of Cornelius Holmes, \* \* \* including the Rulings of the Court upon many Questions of Law, and a full Statement of Authorities upon the Subject of Transitory Insanity.* By CHARLES G. DAVIS, of Counsel for the Prisoner. New York: Hurd and Houghton. 1869.

This handsomely and quite correctly printed pamphlet of 288 pages is published because the trial was of such great public interest and legal importance. The report is quite full, especially of the arguments, and though the version given of the testimony is that of the defence, and it is possible that revision has given strength to portions of it, it is undoubtedly in the main accurate and fair. This trial has much interest for the medical profession by reason of the questions involved, and the testimony introduced.

Cornelius Holmes was a man of large

\* Lectures on Diseases of the Urinary Organs.

† On the Nature and Treatment of Stomach and Urinary Diseases.

‡ Maladies des Reins. § Johnson on the Kidney.

|| Loc. cit., page 275.

frame and rather weak mind; with a strong friendship for Andrews, who bore a good reputation and peaceable character, and was considerably smaller than Holmes; and they were very intimate. Holmes had executed a will, by which Andrews would largely benefit, and this was in Andrews's possession. Andrews sent a note to Holmes, as was not unusual, saying that if Holmes wished to see him before going away, he would be found in his garden that same evening. They met, and were seen in the garden, and afterwards, as Andrews testified, went together to the place where he killed him, which was a cart-path near a cemetery, about thirty rods from any house, as it appears by the plans appended to the report. Andrews testified that here Holmes threw him down, and made an indecent assault upon him; and that similar attempts had been made before at various times, without interrupting their friendly relations; and that he struck Holmes's head with stones in self defence, but that he had no recollection what took place after first striking him, as they rolled off a bank, until he found himself throwing two stones at him, down in the road. Here the body was found the next day, lying face downward, the clothes buttoned, with one knee drawn up, the arms crumpled underneath, the hands clinched together, the back of the head beaten in and the brains oozing out. There were pools of blood at some distance from the body, and stones lay about with blood and brains on them. Andrews returned to his house after the deed, partially divested himself of the traces of the struggle, conversed with various people, and, as he said, did everything he could to secrete everything, and to convince people that he was an innocent man. The next day, before the body was found, Andrews began to talk of the will; and at the inquest, asked advice about taking it to the probate office, and, that evening, did deposit it there. Being subject to frequent headaches, he complained of feeling ill and appeared uneasy at various times for several days after the deed, and, as was his habit, inhaled ether on this account. After his arrest, but before his guilt was known, he went by request to see the body, and kissed the face, spoke of his affliction for the deceased, and offered to take charge of the funeral. At the trial on one occasion Andrews made a sudden exclamation, and afterwards said he thought some one struck him. He also testified that while at the jail he heard familiar voices speak of hanging him. At this time the turnkey noticed that for a day

and a half he appeared disinclined to speak; but after being told that they would "put him in with other fellows, who would stir him up," his conduct *ceased to be peculiar*. When giving testimony, Andrews appeared to be perfectly sound and clear in mind; and nothing had ever been observed by his family or friends which would throw the least suspicion on his sanity.

The insanity of his ancestry was shown to the following extent:—His great grandmother was insane. She had six children, five of whom were insane, and the other, Andrews's grandmother, not insane. She had six children, of whom only the mother of the prisoner was insane. Her disorder existed for some years before and after his birth. She had three other children, none of whom are known to have been insane.

Upon these facts the defence of "insane impulse," or "mania transitoria," was based, and the attack was assumed to correspond in duration to the interval of which Andrews said he had "no recollection," between the first and last blows of the conflict. The counsel, as is the custom in court, wilfully and helplessly floundered in a mass of confusion and misstatement respecting insanity in general, and its application to this case in particular, laying great stress upon "insane milk" and "insane blood," and taking the ground, contrary to the expert testimony, that the evidence of the personal conflict and the necessity for self-defence would *increase* instead of diminishing the probability of the homicide being due to insanity; and Mr. Somerby regarded the *calmness* of the prisoner at the trial as sufficient proof of the same disorder!

Dr. H. J. Bigelow testified to the extent of the injuries, and as to how the weapons must have been used; an especially interesting point being that so extensive injuries could not be inflicted from below upwards upon a standing man.

Dr. J. C. White's testimony as to the chemical and microscopical examination of blood stains is interesting and instructive. The blue color produced by the oxidation of guaiacum through the agency of the coloring matter of the blood, and the formation of hæmin crystals, furnished proof positive of the nature of the stains.

Dr. Edward Jarvis was called by the defence as an expert in insanity. On the evidence, he thought the prisoner had a "maniac paroxysm" at the time of the struggle, lasting "five or twenty minutes," and beginning with the first blow struck. He had no doubt of his soundness before and after



this attack. He stated that there is a kind of insanity known as *mania transitoria*, which may attack a man never before insane, last not more than ten minutes, and leave him sane, and never return. This unsafe and erroneous doctrine the witness based upon a cumulus of citations from various authors, which were not allowed to be read in Court, but which were lately published in this Journal, and are to be found in the Appendix to the Report. It is assumed rather vaguely that "seventy-five to one hundred" cases of this form of insanity have been recorded. But of those given, the account is so meagre that they prove absolutely nothing, and in many of those referred to, there are various delusions and irregularities of mind which were *not* transitory. Authorities agree that many *insane persons* are subject to paroxysms of violence. No fact is more familiar. But the authorities of the present day, and some of the very ones ingeniously quoted by Dr. Jarvis, expressly disclaim and deny that such a thing as transitory insanity, only manifested by a single act of violence, does exist, or could be distinguished from ordinary crime if it did. The origin of this scientific crotchet seems to have been with Esquirol, and the cases which he reported, occurring within the space of a few years, have come down to us as rare specimens of exceptional disease, of interest as curiosities, of questionable genuineness, and without much practical bearing. Homicidal maniacs form only a small proportion of the total number of persons who become insane: if there were such a thing as momentary insanity the unsurpassed methods of observing and recording cases of insanity at the present day would show such a form to exist, and we should find a *due proportion* to be homicidal. But *all* the cases reported as transitory are homicidal in character! This is significant. Where are the cases *not* homicidal, which ought to be in majority? We must guard against the danger, great at the present day, of letting a high sounding *foreign name* go far as authority with us, when in reality our powers and opportunities of observation in this country may be not inferior, and we are not so much hampered with the burthen of the dead past. As an offset to the dictum of Messrs. Castelnau and Devergie, quoted by Dr. Jarvis, we claim that the first well-attested case of transitory or momentary insanity, in this country, has yet to be found. Statistics show that cases of brief duration are rare in proportion to their brevity. The very number of the cases given by Esquirol as occurring in so short

a period as five or six years, is a discrepancy which of itself throws doubt on his observations. Dr. Bucknill, an authority quoted by Dr. Jarvis, says that the existence of Esquirol's class of homicidal cases, in whom the impulse is "sudden, instantaneous, unreflected on, and stronger than the will," admits of grave doubts; that the testimony in favor of the existence of such a variety is very scanty and unsatisfactory, and it is improbable that cerebro-mental disease can be developed in so rapid a manner. He dissents from Esquirol's monstrous conception of a *lesion de volonté*—a will alone disordered, without other mental disturbance. Nor, according to Dr. Ray, did Esquirol himself always hold the notion of the existence of homicidal insanity unconnected with other mental alienation. Every practical mind will perceive the danger to society of admitting the plea of insanity when the act of violence is the only evidence of the disorder.

By Dr. Jarvis's testimony it appears that his practical experience in observing insanity is extremely limited—his learning no one questions—but he does not assume that he ever observed a case of momentary insanity, or that he knows that one ever existed. His attitude is that of an advocate trying to make out a case, rather than that of an impartial expert. Considering the slender grounds upon which he based his opinion that the prisoner was insane, no one can feel surprise that the jury did not coincide with him. Their verdict was manslaughter.

Dr. Choate's testimony directly controverted that of Dr. Jarvis. With full acquaintance with the authorities, with large experience, and possessing as well, we may add, that practical turn of mind so necessary in a medical expert, he did not give credence to the existence of instantaneous insanity at all. And, taking the evidence as true, he regarded the prisoner as sane. Evidence of insane ancestry, he testified (however strongly proven), is of no value in a given case, without *direct* evidence of insanity, which in the prisoner's case did not exist. The fact that a man was under constant observation and appeared sane down to an hour at least before the homicide, and then a half hour afterwards, was conclusive to his mind that the homicidal act was not in consequence of disease and did not spring from insanity. The evidence of motive, selection of time and place, and the concealment afterwards, were all against insanity, and influenced his opinion. The report is erroneous where Dr. Choate is made to say that *nursing* from an insane

mother would in his opinion increase the liability of the prisoner to become insane. The question was raised, and his opinion was the reverse. He thought it fair to assume, however, that the liability would be greater if the mother were insane during conception and gestation, than if she had been so only previously or subsequently.

It appears in the evidence of both experts that it is not *insanity* that is transmitted, but *liability* to insanity. But Dr. Jarvis testified that children of insane parents "are of inferior cerebral organization, more liable to disease, and a smaller cause would produce insanity in them." This is not true of *all*, and may or may not apply to a given case. No predisposition at all may be inherited, and the *tendency* is toward the healthy type.

In charging the jury, the Chief Justice expressed his opinion as to the value of expert testimony in general, regarding it as impaired by the tendency to partizanship often apparent. The only sufficient remedy for this (as is ably stated in the article on Medical Evidence in a recent number of this JOURNAL), is providing that the experts be appointed to aid the court, instead of being called by counsel. This plan has been tried in France and England before now; and what amounts to practically the same thing, now obtains in this State in regard to cases of insanity occurring in the State Prison. The opinion of the medical expert acting as *amicus curiæ*, says Dr. Bucknill, "founded upon a thorough examination of each particular case, would carry conviction with it, and neutralize the sophistries of the bar, the prejudices of the bench, and the ignorance of the jury-box."

N. F.

ON THE PHOSPHORESCENCE OF SEA AND OZONE IN CONNECTION WITH ATMOSPHERIC CONDITIONS.—At the recent meeting of the British Association for the Advancement of Science, Dr. Moffat detailed the result of observations taken at sea, to show that ozone is in maximum quantity with decreasing readings of barometer, and the conditions of the south or equatorial circuits of the atmosphere. He supposed there might be some connection between ozone and the phenomena of phosphorescence of the sea. In this paper, which was read in the Chemical Section, over which Dr. Debus presided, the author sustained his good and well-earned reputation as one of the most laborious of inquirers on ozone and its effects.—*Medical Times and Gazette*.

## Medical and Surgical Journal.

BOSTON: THURSDAY, SEPTEMBER 30, 1869.

### THE RELATIONS OF MEDICINE TO RELIGION.

WE here transcribe for the press, another portion of the unpublished address of Professor E. H. CLARKE, from which we have already drawn.

It is perhaps more difficult to describe the relations of Medicine to Religion than of Medicine to Education, or Law. Yet it is obvious, that between the two, there must be relations of the most intimate character. Before attempting to define any of them, however, let us form some notion of what is meant by religion. I do not mean by it any sect, creed, hierarchy or visible establishment. I refer to the immutable principles of right, which binding man to God, underlie every church and communion. Medicine is the science of physical life. Religion is the science of spiritual life. Medicine teaches the laws of the body. Religion teaches the laws of the spirit. Medicine deals with the material. Religion with the immaterial. Medicine is a part of the divine order of things. Religion comprehends the whole of that divine order. Medicine is to religion what matter is to mind.

In the earliest age, medicine and religion were the same: the physician and priest were one. Among the orientals now they are not divorced. Hakem is the priest of God and doctor of men. When travelling in the East some years ago, I was surprised one morning by a crowd of miserable beings, halt, lame, blind and sick, that had collected around my tent during the night. They had heard of the appearance among them of a physician of the Franks—of a western Hakem—and so came with prayers for relief. They departed sadly and unbelievingly when my dragoman told them I could not heal them. They said I did not choose to go to the God I served. This early faith, which the East still clings to, has in it the germ of a great truth, which now-a-days we are apt to forget, viz.:—that medicine

and religion cannot be wholly divorced from each other, any more than we can divorce matter from mind.

I do not mean to imply materialism by this. Notwithstanding what has been said in some quarters, it may be safely affirmed, that medicine and all science were never more reverent or less materialistic than now. The old sarcasm *ubi tres medici ibi duo athei* is no longer true. The science of to-day believes in the existence of a soul and of a God. It also believes in matter and in the order of nature.

Religion, I have said, comprehends the divine order of things; and medicine touches a part of that divine order. Hence the two must harmonize. The priest and the doctor must not be at variance. Each must allow the reasonable demands of the other. Medicine is reverent, but it is also critical. It is willing to believe, but hates superstition. It loves the truth, but requires demonstration. Herein are to be found the relations of medicine and religion to each other. The former demands no more of the latter than it demands of truth, but it demands as much.

I have called medicine critical, and so it is. It subjects everything to the closest scrutiny. It lays hold of the living and the dead, and traces every form and secret way of life from the lichen up to God. It fears nothing. \* \* \* All bibles, dogmas and mysteries must be yielded up to the keenest dissection. Religion has no monopoly of secrets. Nothing is too sacred for analysis. One relation of medicine to religion, then, is that the latter shall not forbid or curtail the investigations of the former. It is the simple and true relation of freedom.

Again, medicine, as we have seen, has long since discarded superstition \* \* \* and pretension. It rejoices in the beauty of simple truth. It demands of religion a similar renunciation. It will not bear superstition in the church nor about the sick bed, nor at the hour of death. It christens pretension, quackery, wherever found; and doubtless there are quack priests and quack religions, as well as quack doctors and quack medicines. It demands that religion shall be intelligible and not mysterious. This is

not saying that religion is expected to get rid of mystery and explain all the secrets of God. It is only saying that religion, like medicine, shall not require belief in the unintelligible. There is mystery all about us. None recognize this more fully than the physician. He deals constantly with the mysterious and the unknown, but he does not people the darkness with hobgoblins. Where he cannot see he confesses his ignorance, and waits for light. In like manner, religion, if it would consort with medicine or with any science, must be brave enough to say of mystery, I do not know; and when light comes it must be brave enough to use the light, and humble enough to accept what the light reveals. Intelligibility is another relation of religion to medicine.

Once more, medicine demands demonstration. It requires every theory to be proved; every assertion to be made good. It accepts the dictum of no one—authority goes for nothing. Kölliker is obliged to demonstrate the passage of oil globules unchanged from the stomach into the blood, before his statement can be accepted. Bence Jones is obliged to demonstrate the detection by spectrum analysis of  $\frac{1}{155}$  millionth of a grain of chlorate of soda in a solution before the possibility of doing so is credited. When the demonstration is made, the fact is accepted, and physiology adjusts itself to the new-found truth. This demand for demonstration—the Apostolic injunction to prove all things—and the correlative demand for the acceptance of whatever is proved, which medicine makes of itself, it also makes of religion. Whatever religion proves, medicine will delight in believing. The doctor always puts the priest to the proof. \* \* \* Religion, like medicine, must lay aside all superstition, arrogance and dogmatism, and learn humbly to accept whatever can be demonstrated to be a part of the august body of truth. If that is not done, the priest and the doctor will be at variance; and religion will come and live with science. For the closest relation of medicine and religion to each other is that of development. Freedom, intelligibility and development are the only possible foundations and true relations of medicine and religion.

This quotation from Dr. Clarke covers the ground of certain philosophical relations of religion and medicine to each other. There is, however, another broad domain which transcends all philosophy and all science, and which is the peculiar sphere of religion. This region is obviously left untouched in the address. The statements relative to it consist of personal testimony, the credibility of which has its practical tests. Thus certain *experiences* of the inner man in his relation to unseen things are testified to, as revealed only by consciousness (just as sensation is taken cognizance of by perception), and which are *ipso facto* not capable of *demonstration* to others. These statements of individual experience are, however, corroborated by acts and courses of action which cannot fairly be accounted for save by accepting the reality of the facts alleged.

Again, the remarks of Dr. Clarke may be said to refer to the relation between the priest and the physician. In Dr. Latour's introduction to the *Dictionnaire Annuel des Progrès des Sciences et Institutions Médicales* for 1868 is a passage concerning the reciprocal positions of the two professions towards a third party, who is at once the "penitent" and the "patient." That passage we now translate.

He refers to another eminent writer—Prof. Lasègue—as having traced, with boldness and precision, the office not only of the professor but of the physician, in relation to certain disquieting and unanswerable questions. The physician, says Lasègue, has his allotted task. He knows nothing concerning man, except those things which are comprehended between the moment of his conception and the hour of his death. At that hour his scientific mandate expires, as does his social mission. During this time the object of his researches consists merely in the material conditions of existence. Not only has the nature of his knowledge traced this limit, but the common sense of mankind constantly reminds him that he must not transgress it. He is neither the counsellor nor the mentor of any person, in virtue of his science; and if he be summoned, it is, as say the most anti-materialist philosophers,

when the animal suffers (*quand la bête souffre*). Matter—dead or living—is his domain.

At the bedside of the dying the priest questions the conscience, and the physician feels the pulse. Reverse the two rôles and you surpass the absurd. Thus limited, medicine concentrates her studies upon half the problem of the *homo duplex*: but this half belongs to her. The physician is of no authority on the inexplicable question of human free-will, save when he insists upon the necessities which limit it, and teaches how a lesion may instantly transform genius into imbecility. So long as the Judge recognizes the indications of free-will, he maintains his sovereign right of decision. If he has recourse to the authority of the medical expert, it is because he feels that an obstacle more imperious than all reflection, that an impulse which bears down all resistance, has annulled with one blow both the freedom of the will and the responsibility of the defendant. A situation thus framed commands us all to be either pupils or masters.

ADVERTISEMENTS OF SPECIALISTS. *Mr. Editor*,—I have been requested to call attention to and refute the following, which appears as an editorial note in the report of the American Medical Association meeting, published in the June number of the *Richmond and Louisville Medical Journal*:—

"Siehel, Donders, von Græffe, &c., placard the streets with their advertisements, and, in Edinburgh, specialists have their specialty engraved on their door-plates."

In this section of the country perhaps too many of our profession have been abroad to require me to do more than in general terms to assert that the above allegation is erroneous as regards the distinguished ophthalmic surgeons mentioned; though local authorities and custom require or permit some procedures in Europe not tolerated here.

The American Medical Association, at its late meeting, adopted the following resolution:—

"*Resolved*, That private handbills, addressed to the members of the medical profession, or advertisements in newspapers or in medical journals, calling the attention of the professional brethren to themselves as specialists, be declared in violation of article one, section three, of the Code of

Ethics of the American Medical Association."

The American Ophthalmological Society declares, in its Constitution, "No member of this Society shall attach to his name, in any public announcement, the title of oculist, or any similar title, or shall announce in print that he gives special or exclusive attention to special practice."

This law is strictly carried out, and two members were dismissed from our Society for violating it, at the late meeting at Newport, in July. Respectfully,

B. JOY JEFFRIES, M.D.

Boston, Sept. 20, 1869.

NIEMEYER'S TEXT-BOOK OF PRACTICAL MEDICINE\*—APOPLEXY.—We presume a simple announcement of a book bearing Niemeyer's great name is sufficient without an extended bibliographical notice. But, as one of the readers of the JOURNAL has written for the latest advices on the subject of *apoplexy*, we quote for his benefit some passages from the chapter denominated "Cerebral Hæmorrhage—Apoplectic Stroke—Apoplexia Sanguinea." We think, too, that a specimen of the translation may not be unacceptable to others.

"*Etiology.*—Cerebral hæmorrhages almost always occur from the smaller arteries or the capillaries of the brain, and are caused partly by structural disease of the arterial walls, partly by an anomalous condition of the part of brain surrounding the vessels, partly by increased pressure of the blood against the wall of the vessel. The bleeding most frequently occurs when several of the factors act together.

"The structural changes in the walls of the vessels, to which their abnormal fragility is due in most cases, are the results of endarteritis deformans, which was treated of in the first volume. This explains the frequency of apoplexy in persons over 40 years of age, which was noticed even by *Hippocrates*. Next to this, simple fatty degeneration of the arterial walls, not dependent on inflammation, but occurring in badly nourished cachectic and chlorotic persons, also induces greater fragility and

ruptures of the cerebral vessels. Still we must say that fatty degeneration of the finer cerebral arteries is found far more frequently than would be expected from the proportionately rare occurrence of apoplexy. Occasionally, rupture of the entire arterial wall is preceded by rupture of the inner and middle coats, while the adventitia still resists. In such cases the blood escapes between the external and middle coats, and small dissecting aneurisms are formed. Lastly, there are cases where abnormal weakness of the cerebral vessels must be supposed, although it cannot be proved. These are the rare cases where cerebral hæmorrhages are found in convalescents from typhus and other acute infectious diseases and during scorbutus.

"We have already mentioned that, in necrotic softening of the brain, capillary hæmorrhages not unfrequently occur along the borders of the softened part. Frequently, gradual atrophy of the brain causes dilatation and final rupture of the vessels. While the brain-substance disappears, a vacuum cannot form in the skull; hence increase of the cerebro-spinal fluid and dilatation of the vessels are necessary results of senile or any other form of atrophy of the brain, which is a frequent sequel of the most varied forms of disturbance of nutrition. Perhaps the frequency of apoplexy in advanced age depends at least partly on this circumstance, and there is no doubt that the atrophy of the brain, which is in many cases caused by the first apoplectic attack, has something to do with the frequent recurrence of apoplexy.

"The increased pressure of the blood on the walls of the vessels, by which the latter are ruptured, may depend on any of the causes which we indicated in the first and second chapters as causes of hyperæmia. The frequent occurrence of apoplexy during long and luxurious meals, tends to show that the hyperæmia of the brain induced by temporary plethora is one of the most dangerous forms. Hypertrophy of the left ventricle, particularly that form resulting from any extensive endarteritis deformans, plays an important part in the ruptures of cerebral vessels. In the latter case two dangerous factors unite—the morbid fragility of the vessels and the increased pressure of the blood on them. Moreover, small arteries, in which there is otherwise a regular pressure of the blood, and whose walls also maintain a nearly equal tension during the systole and diastole of the heart, pulsate when there is extensive atheromatous degeneration, and at every systole of

\* A Text-Book of Practical Medicine, with particular reference to Physiology and Pathological Anatomy. By Dr. Felix von Niemeyer, Professor of Pathology and Therapeutics, Director of the Medical Clinic of the University of Tübingen. Translated from the Seventh German Edition, by special permission of the Author, by George H. Humphreys, M.D., &c. &c., and Charles E. Hackley, M.D., &c. &c. 2 vols. Svo. Pp. 770. New York: D. Appleton and Company.

the heart the normal medium tension of their walls is decidedly increased. It will be readily understood that this circumstance also increases the liability of the vessels to rupture. Cerebral hæmorrhages so often depend on the complication in question, that, in doubtful cases, the discovery of hypertrophy of the left ventricle and of an atheromatous degeneration of the arteries may decide the diagnosis.

"Apoplexies occur at all times of the year; occasionally, without any known cause, cases accumulate remarkably. They have also been observed at all times of the day, and statistical tables have been made of their comparative frequency at morning, mid-day and evening. Although advanced age furnishes the largest number of cases, apoplexy does occur even among-children. Men are somewhat oftener attacked than women. There is no such thing as an apoplectic constitution, indicated by a short neck and broad shoulders. \* \* \* \*

"It is usually supposed that the apoplectic fit is a result of the pressure or bruising of the nerve-filaments and ganglion-cells of the entire brain by the extravasation. However, it is evident that this pressure can never exceed that of the blood in the cerebral arteries; for, as soon as the pressure in the parts around the arteries is as great as that of the blood in the vessels, no more blood can escape from the latter. But, from experiments that we can make on the peripheral nerves, there is no doubt that such a pressure is entirely insufficient to annul the excitability of the nerve-filaments. \* \* \* We refer the apoplectic fit to sudden compression of the capillaries, that is, anæmia of the brain-substance. In all large hæmorrhages this anæmia may not only be recognized with certainty after death, but even during life it shows itself by a very important symptom, which is usually falsely interpreted, that is, by a remarkable pulsation of the carotids. This symptom is very generally regarded as a sign of 'increased pressure of blood to the head,' although it really indicates that the flow of blood into the skull is obstructed; we may at any moment induce the same phenomenon in the artery of the finger by tying a string tightly around the end of the finger. All diseases of the brain and its membranes affecting the space in the skull enough to prevent the escape of blood from the afferent vessels—not only large effusions of blood, but also abundant exudations and transudations, large tumors, &c.—are accompanied by increased pulsation of the carotids. If we find this symptom, when

there is no hypertrophy of the left ventricle, nor corresponding pulsation in other arteries, it will, in doubtful cases, be a great aid to the diagnosis of some brain-disease encroaching on the cranial cavity.

\* \* \* \* \*

"*Treatment.*— \* \* \* \* If a patient has had one attack of apoplexy, he must be particularly careful to avoid all causes by which the cerebral vessels may be overfilled and distended; he must especially avoid long, luxurious meals, and must keep his bowels regular.

"If cerebral hæmorrhage has occurred, it becomes our object to prevent a continuance of the bleeding, to induce re-absorption of the extravasation, and the formation of an apoplectic cicatrix. But we must not deceive ourselves as to our power, and must understand that we have no remedy for arresting the hæmorrhage, or for hastening the re-absorption and cicatrization. In the treatment of this disease we are restricted to combating the more dangerous symptoms as well as possible. Not a few patients, in apoplectic fits, recover consciousness during venesection, and it seems as if we could, not unfrequently, prevent the extension of the paralysis from the cerebrum to the medulla oblongata, which is indispensable to life, and so save the patient by bleeding. On the other hand, there is no doubt that, in many cases, bleeding during an apoplectic fit hastens a fatal result; collapse occurs immediately after the venesection, and the patient never arouses. We have previously said that bleeding must always prove beneficial, if the symptoms given as signs of pressure on the brain were actually induced by the pressure to which the brain is subjected by the extravasation; and we have also said that the want of success in venesection, in many cases, spoke against this explanation. From the explanation that we have given of the apoplectic fit, it is evident that, under some circumstances, venesection is a very useful remedy; under others it is very injurious, and the indications for it may be very exactly given. In order that as much arterial blood as possible may enter the brain, we must try to facilitate the escape of the venous blood, without, however, diminishing the propelling power too much. If the impulse of the heart be strong and its sounds loud, if the pulse be regular, and no signs of commencing œdema of the lungs exist, we should bleed without delay. Local bleeding by leeches, behind the ears, or to the temples, or by cups to the back of the neck, cannot replace gene-

ral bleeding, but they may be used as adjuvants. If, on the contrary, the heart's impulse is weak, the pulse irregular, and rattling in the trachea has already begun, we may be almost certain that bleeding would only do harm, since the action of the heart, which is already weakened, would be still more impaired, and the amount of arterial blood going to the brain would thus be still more decreased. When the latter state occurs, the symptomatic indications require just the contrary treatment, in spite of the original disease being the same, and being due to the same causes. We must strive with all our skill, by the use of stimulants, to prevent paralysis of the heart. If we cannot give wine, ether, musk, &c., internally, we should apply large sinapisms to the chest and calves of the legs, rub the skin vigorously, sprinkle the breast with cold water, or drop melted sealing-wax on it.

"If the patient has recovered consciousness after the apoplectic fit, we simply prescribe a mild, unirritating diet, keep the bowels open, and cover the shaved head with cold compresses, so as to prevent, if possible, too severe inflammatory reaction. According to the severity of the inflammatory symptoms which, nevertheless, occur, we may continue this simple treatment, and at most give a purge, or apply leeches behind the ears, and repeat the application if necessary. In this stage venesection is superfluous and dangerous. On the other hand, especially when the fever-symptoms have moderated, good is done by derivatives to the nape of the neck, such as blisters and pustulating ointments, which subsequently are no more to be used.

"If the stage of inflammatory reaction has happily passed, and the patient is pretty well, except the paralysis, we should avoid prescribing strychnia and other remedies, which are neither theoretically nor practically useful, but should regulate the diet and bowels, and place the patient under the best possible hygienic influences. Well-to-do patients may be sent to Wildbad, Gastein, Pfäfers, or Ragatz. We must not hope that the destroyed filaments of the brain will be restored by the use of these waters, but experience shows that, at these places, both cerebral and spinal paralysis often improve; probably this improvement is due to the favorable influence of the baths on the inflammation about the clot, and on that portion of the paralysis due to it.

"Lastly, it cannot be denied that paralyses are generally improved by the employ-

ment of the induced current of electricity. This is doubtless solely because "*faradisation localisée*" is one of the most powerful means of therapeutic gymnastics. After paralysis has lasted some time, its degree almost always depends partly on diminished excitability of the nerves, and on commencing atrophy of the muscles from long disuse. For both of these states the methodical excitement of the nerves by the induced current is certainly the best remedy, and, at all events, it deserves the preference to irritating liniments, salves and tinctures."

THE HARVARD AND OXFORD BOAT RACE.—The victory of the Oxford crew over their gallant antagonists from America is due doubtless to many causes, but, above all, to their better style and "form;" and these words, being translated into matter-of-fact language, mean that the Oxford men could breathe better than the Harvards. It is with man as with a steam-engine. If a spurt is to be put on, the fire must be poked up, there must be a good draught of air, and free vent for the smoke. If during violent muscular exertion there be not a good supply of oxygen, the combination of it with carbon, which is the source of force, is checked; and the same imperfect mechanism that interferes with the indraught of oxygen checks also the outgoing of the stifling and oppressive smoke known as carbonic acid, while at the same time the heart, which pumps, cannot do its work unless there be free passage through the lungs. Now the action of the Oxford men allowed for the freest breathing possible under the circumstances. Sitting in good form, giving the widest possible play to the muscles of inspiration, they could inflate their lungs well as they bent forward, empty them gradually as they raised themselves in pulling, and enjoy a moment of repose as they bent forward for the next stroke. The Harvard men sat in worse form; in pulling they swayed their bodies too far backwards, instead of the calm forward movement of the Oxford men. Their style was jerking, spasmodic and hurried, compared with the slower and more powerful stroke of the Oxonians—a jerk which interfered with the act of inspiration, and which took away that short but precious repose which their adversaries enjoyed between their strokes. How precious that almost inappreciable interval of rest is between the two successive acts is shown by the distress which ensues when the heart is deprived of it by imperfection of the aortic valves. This, of

course, was aggravated by the more rapid stroke. The act of Mr. Burnham, the American coxswain, in splashing water into his friends' faces, was judicious: it is an effective mode of getting a deeper, fuller breath, but it is no substitute for good form. Nothing could be more gentlemanly than the demeanor of the Harvard men, but they affected a secrecy about their proceedings, would not let their weight be known, brought their own black cook to prepare all their food, and drank far more freely of water than is usual here. It is a pity that they refused English teaching, although, consciously or not, they drifted in the course of practice into a far more English style than they started with.—*Medical Times and Gazette*.

The physiological deductions of the *Gazette* from the data assumed are undoubtedly sound; the only question is about the correctness of some of the premises. We suspect that the Harvards would have made better time—good as that actually made was—and might have kept up their "fearful pace" to the end, had not two of their number been out of condition, from change of climate, or some other cause. Greater familiarity with the course, too, might have improved the steering of the coxswain. We will add that we are informed by an eye-witness who was on the umpires' boat that the Harvards, when in the advance, avoided giving the wash to their competitors, and thus apparently encountered an unfavorable eddy. That the Oxfords did not reciprocate the courtesy, which they did not feel themselves bound to return, is not put forth as a ground of complaint. The same informant states that the English oarsmen seemed to strive as hard the last quarter of a mile as they did the first. It strikes us the question of the best form is still an open one.

#### LIGATURE OF THE AORTA IN EDINBURGH.—

On Friday, the 6th inst., Dr. Patrick Heron Watson tied the aorta on account of secondary hæmorrhage from the common iliac artery after ligature. The iliac had been tied nine weeks before with catgut, under the most careful antiseptic precautions, and employing similar after treatment. In spite of this, internal hæmorrhage set in, distending the iliac fossa and cavity of the pelvis, and escaping partially by the yet unhealed incision.

The artery at the point of ligature was found to be completely divided, but no trace of the catgut ligature was discovered. The diseased condition of the arterial tunics precluded the application of a ligature to the stump of the iliac. Dr. Watson, therefore, plugged the vessel with his forefinger, took off the Dubois' aortic tourniquet, made an incision in the linea alba, opened the cavity of the abdomen, turned aside the bowels, cut through the mesentery, cleared the aorta half an inch above the bifurcation, and, carrying a ligature round it with a common aneurism needle, secured the vessel with a common silk ligature. He also secured the external and internal iliac branches upon the affected side, so as to prevent recurrent bleeding.

The patient went on well for the first forty-eight hours, but after the sixtieth hour gradually sank, dying sixty-five hours after the operation—living, however, longer than any of the eight recorded cases, except the one of Monteiro, in which the patient survived the operation ten days.

The operation was undertaken merely to prevent inevitable death from hæmorrhage, which must have proved instantly fatal unless the ligature of the aorta had been performed. No further bleeding took place. The limbs regained their temperature after the operation, but before death the left limb (the side on which the iliac had been tied) had sunk in temperature some six degrees below the other, as high, at least, as the knee; above this the temperature was the same on both sides.\*—*Medical Press and Circular*.

THE SUEZ CANAL.—In his annual report on the sanitary condition of the population concerned in this undertaking, M. Aubert-Roche states that this is most satisfactory, the mortality, except in the year of the cholera, having been maintained as low as 1 per cent., while in France it is 2.40 per cent. He points out the great increase of European population that is taking place. In 1859 the population of the isthmus amounted to only 150 persons, of whom only 25 were Europeans. Last year there were 34,258 individuals, of whom 16,010 were Europeans, and 18,248 *indigènes*, and, at the present time, there are 42,400 inhabitants, of whom 22,823 are Europeans.

\* Sir A. Cooper first performed this operation in 1817. Since that date it has been done twice by Mr. James, of Exeter, and once by each of the following surgeons—Murray, at the Cape; Monteiro, at Rio; South, in London; Hunter McGuire, of Richmond; and Watson, Edinburgh.



During his ten years of Medical inspection public health has been constantly improving; but this has been brought about by a great sacrifice of Medical officers, for of 11 *chefs de service* who have taken part in the enterprise only 5 survive.—*Union Méd.*, Aug. 17.

POISONOUS ODORS.—*L'Union Médicale* is very positive on the subject of the deleterious action exercised by the perfume of flowers, especially such as the lilac, jessamine, hyacinth, tuberose, on persons who have the imprudence to leave them at night in the bed-chamber. The more or less fictitious cases of suicide and assassination, which have been related under this head, should not induce us to doubt the reality of the asphyxiating power possessed by strongly smelling flowers. Certain odoriferous fruits share the same deleterious property.

We read in the *Union Bourguignon*, of Dyon, that a grocer who had slept in a small room, in which the contents of three chests of oranges had been piled up, was found asphyxiated in the morning, and was only resuscitated by the most energetic treatment.

Our readers will also recollect a case not long since reported, of death resulting from the odor of quinces, which occurred from sleeping in a room where a large quantity of them were kept.—*Dublin Medical Press and Circular*.

RATTLESNAKE BITE TREATED WITH OPIUM.—We make the following extract from a letter to the Editors of the *Medical Archives*, St. Louis, Mo., from Dr. R. T. Short:—"On the 20th of July I was incidentally called to see a lad aged 17, who had been bitten by an average sized prairie rattlesnake (*crotalus*), (massasagua). On examination, two punctures were visible in the sole of the right foot, which was evidently the point bitten. The patient was comatose, pale and cold; skin dry and very sensitive, the slightest touch being followed by a slow but general vermicular movement over the whole surface; lower limbs paralyzed; pulse 20 at the wrists and very feeble; pupil largely dilated. Not having with me any *specific* for snake bite I was compelled, as usual, to rely on regular remedies. It being now too late to prevent the absorption of the poison, I determined to make use of opium to fulfil the indications presented. Accordingly, about 4 o'clock, P.M., I gave 2 grains opii pulv. At 6

o'clock repeated the dose; pulse 32; at 8, repeated the dose, pulse 50; at 10 o'clock, repeated dose, pulse 65, slight perspiration; at 12 o'clock gave last dose, 2 grs., pulse 80; pupil contracted to normal size. About 3 o'clock the patient waked up as from a healthy sleep, and asked for something to eat; allowed him a good sized meal. Said he felt well in every respect; continued awake until 2, P.M., when he began to complain of feeling weary. Pulse gradually sunk to 18, when the opium was again resorted to, to raise it; 2 gr. doses every two hours for ten hours left the pulse at 85. Medicine discontinued; recovery complete. One remarkable feature in the case was that the opium at no time exerted its characteristic soporific influence—perspiration was excited both times. The opium was of excellent quality, I know, having used out of the same package for more than a year. \* \* \* \* \*

THE AUTHOR OF THESAURUS.—Dr. Peter Mark Roget, who died in England on Friday, at the age of 90 years, was a Swiss by origin, and his mother was a sister of Sir Samuel Romilly. He stood high as a physician, but is best known by his valuable "Thesaurus of English Words and Phrases," and his contribution to the Bridgewater Treatises on "Animal and Vegetable Physiology." He wrote various mathematical papers, and contributed largely to the medical and philosophical reviews. His great work of English words and phrases was revised and enlarged by Barnas Sears in 1854, while he was Secretary of the Massachusetts Board of Education, and published by Gould & Lincoln. It has passed through several editions since, and though it was the first work of its kind, the completeness of its plan and its fulness of details left little to be supplied.—*Boston Evening Transcript*.

EARLY MAN.—The communication by Dr. Woodward, read at the Exeter meeting, on the recent discoveries in Essex, will, we suspect, dispose of a good many people to modify their opinions on the subject of geological time. In the same deposit are remains of the stone, bronze, and iron ages, together with earthen pottery, and the remains of the beaver, the reindeer, the gigantic ox (*Bos primigenius*), the mammoth, and the elk. A people who made earthen pots, some by hand and some turned on the wheel, do not suggest the idea of a very remote antiquity.—*Medical Times and Gazette*.

## Medical Miscellany.

**TOMATO WORM.**—Dr. Fuller, of Syracuse, the *Carthage Republican* informs us, "has in his office a tomato worm measuring five inches in length, and weighing an ounce. It was taken from a tomato vine in his garden, and is now securely enclosed in a glass bottle. It eats and digests twenty times its own weight of tomatoes and tomato leaves. It eats constantly, except resting occasionally from one to two minutes. This worm was first discovered this season, and is as poisonous as a rattlesnake. It poisons by throwing spittle, which it can throw from one to two feet. This spittle striking the skin, the parts at once commence to swell, and in a few hours death ends the agonies of the patient. Three cases of death in consequence of this poison have recently been reported. The medical profession is much excited over this new enemy to human existence. It is advisable for persons picking tomatoes to wear gloves. The question arises whether or not a tomato partly devoured by one of these vermin, and then afterwards eaten by a person, may not have sufficient virus left upon it to poison the one who eats it?"

If this story cannot be contradicted emphatically and at once, the amount of land devoted to the culture of tomatoes in this part of the world will be suddenly and rapidly reduced. We do not care to give hospitality to visitors who eat twenty times their own weight, and whose saliva is a deadly venom.—*N. Y. Times*.

We hope some who knows will set the matter at rest authoritatively.

**MORALITY OF PARIS AND THE PROVINCES.**—The following statistics touching the proportion of illegitimate births in Paris during the year 1867—the latest on the subject—will perhaps have some interest for our numerous subscribers:—

Legitimate children	- - -	39,572
Natural children	- - -	15,472

Total births in 1867 - 55,044

The proportion between the legitimate and natural children is as 2.56 is to one, or, in other words, there are born in Paris for every one natural child, two and a half legitimate.—*New York Medical Record*.

**PRODUCTION OF THE METALLIC PERCUSSION SOUND.**—According to Dr. O. Heubner (*Archiv der Heilkunde*, 3 Heft), the best method to reduce the metallic percussion sound in pneumothorax is to lay firmly upon the thoracic wall a hard narrow fleximeter, and to percuss with an equally hard metallic plexor. A very weak stroke suffices.—*Ibid*.

**GOITRE CRETINISM.**—M. Garrigon, consulting physician at the Mineral Springs of Aix, asserts that certain endemics are due to the existence of magnesia, and more especially to the silicate of that earth, in the soil, which modifies all organisms, both vegetable and animal. His doctrine is based upon extensive observations made in the districts

of the Pyrenees where such maladies are endemic, and are coincident with such geological constitution.—*Dublin Medical Press and Circular*.

**PROF. BOEHM—DISSECTION WOUND.**—The *Union Médicale* of September 7th states that at that date Prof. Boehm, of Berlin, had probably ceased to live. Eight days before, he met with a slight dissection wound, of which he took no notice. Two days after, the hand became swollen, and fatal symptoms soon set in. The distinguished victim contemplated his fate with the utmost tranquillity of mind.

**A DEFINITION.**—The compositor at this office finds *Traumatic* defined in Johnson's and Worcester's Dictionaries "A medicine to heal wounds—useful for wounds." Daughlison, as we know, gives a different meaning. The true interpretation it may prove desirable for medical disputants round about to settle.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATUM.**—The leading paper in our last issue on the Treatment of Typhoid Fever by the Reconstituents, was translated from the French by W. O. Johnson, M.D., from a pamphlet sent him by S. F. Cones, M.D., U.S.N.

**TO CORRESPONDENTS.**—Communications accepted:—Dislocation of the Trapezoid.—Review by C. W. S.—Dislocation of the Elbow.—Records of Obstetrical Society.—Internal Administration of Chloroform in Conceptions.—Post-partum Hemorrhage.

**PAMPHLETS RECEIVED.**—The Orleans Infirmary and the Medical Association of New Orleans. *Dat veniam corvis, vexat censura columbas*.—Catalogue of Graduates of Jefferson Medical College of Philadelphia. 1826-1869.—Address delivered by Isaac Ray, M.D., of Philadelphia, on the occasion of laying the Corner Stone of the State Hospital for the Insane, at Danville, Pa., Aug. 26, 1869.

**DEATHS IN BOSTON** for the week ending September 25, 114. Males, 61—Females, 53.—Accident, 3—disease of the bladder, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 5—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 20—consumption, 13—convulsions, 2—croup, 4—cyanosis, 1—debility, 1—diarrhea, 5—dropsy, 1—dropsy of the brain, 2—typhoid fever, 5—gallstones, 1—disease of the heart, 4—infantile disease, 1—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 5—old age, 7—paralysis, 2—phlebitis, 1—pleurisy, 1—premature birth, 2—puerperal disease, 3—purpura, 1—suicide, 1—syphilis, 1—teething, 1—tumor, 1—unknown, 8—whooping cough, 2.—Under 5 years of age, 53—between 5 and 20 years, 5.—between 20 and 40 years, 26—between 40 and 60 years, 15—above 60 years, 15. Born in the United States, 82—Ireland, 21—other places, 11.

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[VOL. IV.—Nos. 10 & 11.]

Original Communications.

THE INTERNAL USE OF CARBOLIC ACID.

By JOSEPH G. PINKHAM, A.M. M.D., of Lynn, Mass.

SINCE the first introduction of carbolic acid to the notice of the profession, as a remedial agent, in the early part of the present decade, many pages, I might, perhaps, say volumes, have been written, pro and con, upon the question of its therapeutic merits. And although in some respects its good qualities are pretty thoroughly established, in others it must still be considered as *sub judice*—a statement, forsooth, that might be truthfully made concerning every article of the *materia medica*, so uncertain is the greater part of our so-called knowledge, in regard to the action of drugs upon the human system, in health and disease.

The power possessed by carbolic acid, in common with several other allied compounds extracted from coal tar, of arresting the processes of putrefaction and fermentation, and of destroying the germs of organic life, or of preventing their development, is generally considered the chief basis of its therapeutic value; and it was the discovery of this power that prepared the way for its employment externally as a disinfectant, deodorant and preservative. The manifest success of its application for these purposes, led, very naturally, at a time when the minds of medical men were possessed by the notion of the zymotic or fungous origin of certain diseases, to its use internally. Who first thought favorably enough of the idea to put it into actual practice, it would be difficult now to ascertain. Probably the credit of originality is due equally to more than one observer. The editor of Braithwaite seems to ascribe it to Dr. Keith, of Normandy, England,\* but in this he is widely mistaken, as will appear by the citations further on.

When administered internally, whether by the stomach, in the form of spray by inhalation, or as an injection to be retained,

the remedy is always applied to a mucous surface, and from it absorbed into the blood. Hence there are three classes of effects to be studied. 1, The local effects upon the mucous membrane. 2, Effects upon the substances in contact with the mucous membrane. 3, Effects upon the blood and vital processes after absorption.

The local effects, when employed in very dilute solution, as, of course, it always is in the methods of administration mentioned above, are those of moderate and agreeable stimulation. It has been called a local sedative; and it certainly does allay nervous irritation, itching, &c. This may, however, be mostly a secondary effect of its chemical, or of its stimulant action.

Its effect upon the substances in contact with the membrane, whether mucus, pus, blood, the digestive fluids, aliment, fæces or other matter, are chiefly in the direction of arresting or preventing destructive chemical changes. In this way it prevents the formation of new substances which irritate the mucous membrane, and cause distress, or aggravate any existing derangement of function or condition. Its powers as a local alterative are, I opine, due mainly to this action.

It has been suggested that it might retard the process of digestion, when taken into the stomach with the food, by interfering with the action of the nitrogenized constituents of the digestive fluids. I have tested its influence upon the salivary and gastric fluids with respect to their peculiar action upon the food, in the manner described below.

*Experiment I.*—The fluids of the mouth were tested for sugar, and found to contain none, or only the merest trace. A piece of boiled starch, free from sugar, was held in the mouth for five minutes, filtered, and tested for sugar. A beautiful and decided reaction, showing its presence in large quantity.

*Experiment II.*—A portion of starch was intimately incorporated with an aqueous solution of carbolic acid, and held in the mouth for five minutes. Test, and result as in Exp. I.

\* Braithwaite's Retrospect, July, 1869, p. 26.

*Experiment III.*—A piece of starch intimately mingled with a larger quantity of carbolic acid, as much as could be comfortably borne by the mouth, was subjected to the same process with the same result as in the other two experiments.

These experiments were repeated, with the variation of holding the starch in the mouth a much shorter period, from one half minute to a minute, with exactly the same result, except that the test showed less sugar to be present in each instance.

*Experiment IV.*—An artificial gastric juice was made by macerating the stomach of a recently-killed cat, in an ounce of water, acidulated with thirty minims of hydrochloric acid. This was filtered, and a clear, slightly yellow liquid obtained. Seven test-tubes of the ordinary size were then tightly fitted with corks, and into each one was put forty minims of the "gastric juice," and a small shred of beef. The shreds of beef were all, as nearly as could be judged by the eye, of equal size. To test tubes *a* and *b* no further additions were made. To *c* was added  $\frac{1}{2}$  minim of carbolic acid dissolved in water. To *d* was added  $\frac{1}{4}$  minim of carbolic acid dissolved in water. To *e* was added  $\frac{1}{8}$  minim of carbolic acid dissolved in water. To *f* was added one small drop of carbolic acid, taken up by a glass rod. To *g* were added two such drops. The whole were then placed at a temperature of 96° ad 100° F., agitated occasionally, and the result noted at the end of six hours, as follows:—

Test tubes *a* and *b*, meat completely digested; fine, red sediment at the bottom of the tubes; liquid above somewhat whey-like.

Test tube *c*, meat completely disintegrated; a few minute muscular fibres floating about undisturbed.

Test tube *d*, meat partially digested; solid fragments still undissolved.

Test tube *e*, meat digested to a less degree than that in *d*.

Test tube *f*, meat only slightly acted upon, shred remaining entire.

Test tube *g*, same as in *f*.

After the lapse of ten hours the meat in *d* was found completely digested. In eighteen hours that in *e* was nearly digested. In the others there was no further change apparent.

From these experiments, granting that the solution used in the last was a fair equivalent for the gastric juice, and that there has been no error of observation, we may, I think, deduce the following conclusions:—

1. Carbolic acid does not prevent, and

probably does not retard, the conversion of starch into sugar by the salivary fluids.

2. When present in no greater proportion than one part in one thousand, carbolic acid does not interfere seriously with the solvent action of the gastric juice upon the nitrogenized constituents of food.

3. When present in larger proportion it interferes with this solvent action, according to its amount. The interference is decided when one part in three hundred and twenty is present; and the one hundred and twentieth part entirely prevents digestion.

From these deductions we may assume that, given in the ordinary doses of the acid, no impairment of primary digestion need be apprehended. When given in doses sufficiently large to retard digestion, the constitutional, poisonous effects will be developed, and overshadow the others. Still it is reasonable to suppose that given with the food for a long time, even in small quantities, it might have an unfavorable effect upon the economy, owing to the power which the experiments prove it to possess.

With reference to its effects upon the blood and vital processes after absorption, a grave question arises. Has it any injurious control over ultimate nutrition—over those processes of waste and repair which are constantly going on in the organism, and the due balance of which is essential to health? This question cannot be answered. It unfortunately belongs to that dark domain of ignorance and conjecture, vital chemistry. We can, however, safely assume that there is a *probability* of its possessing such control; and this probability, together with the conclusions arrived at from the experiments, seem to indicate, very clearly, a limit to the therapeutic usefulness of carbolic acid, when administered internally. But within this limit there is a large class of morbid conditions which, we should naturally conclude, would be favorably affected by its use. And there is not wanting abundant testimony (however valuable or valueless it may be considered) to its efficacy. I make a few references in order to show the direction in which the testimony tends.

Dr. Godfrey, of England, advises its use internally for gastric irritability, the vomiting of pregnancy, flatulence from imperfect digestion, and certain forms of diarrhoea.\*

Dr. Kempton, of Utica, N. Y., has found it of advantage in a somewhat similar class of affections, such as sluggishness of the bowels with offensive breath, dyspepsia

\* Medical Circular, Dec. 17th, 1862.

with eructations of gas, a yeasty condition of the stomach, diarrhoea from eating unripe fruit, &c. The doses in which he gave it were one or two drachms of a solution of one grain to an ounce of water, *pro re nata*. He also employed the remedy with success by inhalation for nasal catarrh with profuse, offensive discharges, and by gargle for sore throat in scarlet fever, diphtheria, and simple tonsillitis.\*

Dr. Wolfe, of Aberdeen, believes it beneficial in all stages of phthisis, particularly for arresting hæmoptysis, allaying irritation, and arresting the profuse secretion in cases of chronic bronchitis and of cavities in the lungs, of laryngeal-phthisis and of colliquative sweats.†

Mr. Blake, of Birmingham, deems it of very great use in whooping cough, given by inhalation.‡

Dr. Andrew Clark, at the London Hospital, considers it valuable in the treatment of vomiting associated with fermentation and catarrh, given in one grain doses in pill; in hæmatemesis from gastric erosions, or ulcer, one grain dissolved in water, with a little spirit every two or three hours; in atonic cases of chronic gastric catarrh, where bismuth, silver, and the acids have failed, in quarter grain doses, much diluted, upon an empty stomach, to be preceded by two or three days' employment of bicarbonate of soda, with or without hydrocyanic acid; in water brash, grain doses dissolved in water, several times a day, and by inhalation of vapor produced by the addition of twenty drops of deliquesced acid to a pint of boiling water, or in the form of spray by the atomizer, one grain to six ounces of water; in certain forms of phthisis in which there is much secretion from bronchial tubes or cavities, and not much irritation, vapor from boiling water (spray cannot be used with safety in any case of phthisis); in oozing hæmorrhages from air passages, in diarrhoea accompanying the march of epidemic cholera, in mucous disease of the large intestine, given by inhalation.

Dr. Clark thinks the remedy of no use in cholera, and so far as his experience goes, of little value in fevers.§ It will be observed that his testimony in regard to its

efficacy in phthisis is directly in opposition to that of Dr. Wolfe, on some points.

Dr. Fuller, of London, employs it in six or eight minim doses of the deliquesced acid for dyspeptic cases of the fermentative class; in scarlatina with sloughing throat; and in the form of spray in the early and advanced stages of phthisis, in laryngeal phthisis, chronic bronchitis, gangrene of the lung, and various affections of the throat. Solution five to ten minims to ounce of water.\* He does not find that it exerts any controlling influence over typhoid and gastric (?) fevers.

Dr. Garraway places great reliance upon it in the vomiting of pregnancy. He gives drop doses three times a day.†

Dr. Keith recommends it internally for scarlet fever, smallpox and measles. The therapeutical effects which he attributes to it are profuse perspiration; rapid lowering of pulse; reduction of fever; improvement of tongue and throat; increase of appetite, all after its use for twenty-four hours. He thinks it most useful in the early stages, but given afterwards it very much modifies the symptoms and carries the patient through the different stages more rapidly than any other treatment he has seen. He noticed that in some cases the urine appeared smoky, as if fine charcoal had been used with it.‡ He prescribed the remedy in combination with acetic acid, laudanum, and chloric ether. For this reason it is difficult to know how much weight to give to his conclusions. A rigid criticism would certainly reject them altogether.

It is manifestly unreasonable to combine several articles of the materia medica, some of them of known potency, and some of them of unknown, and ascribe all the supposed effects to the unknown. To ascribe them to the medicine at all, may involve the fallacy of *quia post ergo propter*, but the course indicated above, too often, indeed, followed, tends to introduce a new and more alarming element of uncertainty into the conclusions. We have too much of imperfect observation and false reasoning in therapeutics. Our periodicals are filled with statements of the efficacy of this or that drug in the treatment of this or that disease, and yet, as a rule, we distrust them all, for we have learned from experience how unreliable they are. The lines of scientific criticism have not yet been drawn closely enough in this department of medical research.

\* American Journal of the Medical Sciences, July, 1868.

† Med. Times and Gazette, Nov. 25, 1865. Braithwaite, Part liii. p. 87.

‡ Med. Times and Gazette, April 11, 1868.

§ British Med. Journal, Feb. 13, 1869.

\* British Med. Journal, Feb. 20, 1869.

† British Med. Journal, March 13, 1869.

‡ London Lancet, Jan. 23, 1869. Braithwaite, Part lix. p. 26.

It will have been observed that the doses in which carbolic acid has been given by different experimenters, varies from one-eighth grain of the crystals up to eight minims of the deliquesced acid, in pill or solution, by the stomach, and from one grain to ten minims to an ounce of water for inhalation. My own dose ranges from one minim to three, three times a day, or oftener if required, by the stomach, and from one minim to five to the ounce of water for inhalation. I prefer to give it always in largely diluted aqueous solution. The taste can be to some extent masked by a little lemon juice or cinnamon water. Dr. Fuller, who uses the largest doses of any one who has written upon the subject, has noticed faintness follow occasionally the long-continued application of the spray.\* I have several times noticed dizziness and faintness following the use of three minim doses taken into the stomach, in dilute solution. I consider that three minims should be the maximum dose. We ought not to lose sight of the fact that carbolic acid, like other potent medicines, is a dangerous poison; that it has proved fatal in more than one instance when applied as a wash to the whole surface of the body in some skin diseases; and several times when taken internally.

It would be difficult to state the smallest amount that could prove fatal to an adult. I should tremble for the safety of a patient who had taken half a drachm, or even twenty minims, in however weak solution.

The following cases will illustrate my manner of employing the remedy, and show, to some extent, its beneficial effects, as well as the negative results of its administration.

CASE I.—Mrs. O., a sufferer from chronic Bright's disease, and its usual concomitants, amaurosis, cephalalgia, slight general anasarca, irritable stomach and bowels. At one time after an attack of bilious vomiting the nausea became so constant and so great, that no food, or but the smallest amount, was tolerated for days, and the patient seemed rapidly sinking from inanition. Various remedies were tried, but none had the desired effect until carbolic acid was resorted to. This, given in two drop doses, each dissolved in a drachm of water, *pro re nata*, accomplished its object perfectly. At first the above-named dose was given every hour; afterwards irregularly, in accordance with the patient's feelings. It enabled her to take nourishment, and she regained her strength in conse-

quence. Since then, during a period of nearly seven months, she has had repeated attacks of nausea, which she has always been able to control by the remedy exhibited as above. Its effect has been in every respect pleasant. A little lemon juice was added to conceal the taste.

CASE II.—Mrs. F., a young married lady, pregnant the second time. Had retroversion uteri and a diseased cervix. She was afflicted with nausea and vomiting during the early months of pregnancy. The usual list of medicines was gone through with, with only temporary relief. Carbolic acid in minim doses was at last prescribed, with complete success for a time; but the patient having conceived a great aversion to the taste and odor of the article, declared herself unable to take it, and it was discontinued. It seemed to be very efficacious when taken.

CASE III.—Miss D., a middle-aged lady, in the advanced stages of pulmonary phthisis. Has hectic fever, profuse sweats, abundant and characteristic expectoration of matter from the lungs, the usual physical signs of phthisis, emaciation, irritable stomach, and constipated bowels. Carbolic acid was given by the stomach, one and a half minim in solution, a short time before each meal, and by inhalation with the steam atomizer, three minims to the ounce of water, three times a day. This treatment seemed to improve the condition of the stomach somewhat, but the general symptoms were not in the least degree favorably modified, as I could discover, nor was the course of the disease shortened. The patient was taking stimulants and tonics at the same time.

CASE IV.—Mrs. M. Advanced phthisis; symptoms nearly as in the foregoing case. Carbolic acid was given by the stomach as above, with no beneficial effect, except an allaying of gastric irritability.

CASE V.—Mrs. R. Incipient phthisis, with bronchial irritation, a distressed stomach, and tendency to diarrhoea. Carbolic acid given per stomach, and by inhalation, with no permanent good effect.

CASE VI.—Mr. T. Mild asthma, accompanied or caused by bronchitis. Carbolic acid given by inhalation with the steam atomizer once every few days, apparently had the effect of curing the disease. Treatment continued for several weeks.

CASE VII.—Mrs. F. Obscure abdominal disease, attended with severe attacks of colic and constipation, followed often by diarrhoea, with mucous discharges from bowels, and the passage of masses looking

\* Loc. cit.

like potato skins, and undigested food. Pain intense—great distention of colon with flatus, borborygmi, disturbance of stomach and emaciation. Carbolic acid given by the stomach in three minim doses twenty minutes before each meal, and by injection in six minim doses twice a day, to be thrown as high up into the bowels as possible, with a long rectal tube. For a time all the symptoms seemed to be ameliorated by the remedy. But after a few weeks, the trouble returned with all its old violence, and in view of the uncertainty of the long continued use of the medicine, it was deemed advisable to discontinue it.

CASE VIII.—Mrs. B., a middle-aged lady, of dark complexion, and bilious temperament. Has been suffering for some months with a bad cough, which keeps her awake nights; with loss of appetite and flesh, pains in the chest, difficulty of breathing, &c. Physical examination not decisive. Diagnosis, chronic bronchitis. She was given daily inhalations of carbolic acid with the atomizer. On some days the treatment was omitted on account of the patient's inability to attend at the office. Ten inhalations were given in all, each one lasting about a half an hour. The first gave relief, and each succeeding one still more than the others, so that after taking the number mentioned she was nearly free from cough, or so little troubled that she could sleep all night, a pleasure she had not enjoyed before for a long time. It should be remarked that a mild hepatic was prescribed at first, and an iron tonic, *vinum ferri amari*.

CASE IX.—Mrs. H., an hysterical young widow with one child. Has uterine inflammation, and suffers from reflex irritation of the stomach, and the other troubles which usually attend such diseases. Heart's action irregular. Has spells of great prostration. I was summoned to see her on the 25th of April, when she was supposed to be dying. She had vomited her food uniformly for several days, and lived only on wine. Was then feeling the reaction. Pulse feeble and intermittent. Ordered wine to be discontinued, except a very small quantity, and nourishing food to be taken at the usual time of meals, or more frequently if desired, after a dose of carbolic acid one and a half minim in a drachm of water. This stopped the vomiting, and the patient gained strength accordingly. She has used it many times since with a similar result.

CASE X.—Mrs. B., a pale, anæmic, middle-aged lady, mother of a family, of constipative tendency. Has ascites and œde-

ma of lower extremities, no enlargement of liver, no evidence of renal disease from examination of urine. She has organic cardiac disease, which with the anæmia probably causes the dropsy. Ascites very marked, interfering with respiration. Edema of lower extremities so great as to make locomotion very difficult. Stomach very irritable. Had taken hydragogue cathartics until she could tolerate them no longer, but threw them up almost immediately. Tongue red, sore, and fissured. There was a good deal of thirst, and distress at the epigastrium. After a further trial of cathartics in a different form, they were abandoned, and digitalis was prescribed both internally and as a liniment to back and abdomen, and the legs punctured to get rid of the liquid. An immense quantity was drained off, and the patient much relieved. The stomach, however, continued very irritable, and to remedy that I gave carbolic acid in minim and a half doses, dissolved in water, a short time before each meal. The effect was immediate, and with the aid of a tonic, *vinum ferri amari*, the patient was in a short time restored to comparative health. I may be here allowed to digress far enough from the subject, to call attention to the admirable effect of the digitalis in this case. It very notably increased the secretion of urine, which was scanty before, and steadied the action of the heart.

CASE XI.—Mr. B., father-in-law of the above—a small man, of nervous temperament, sixty-seven years of age. For three months has been failing in flesh and strength. Most prominent symptoms referred to the stomach. Distress and tenderness at the epigastrium—frequent vomiting of food, pyrosis. Has been troubled for years with a mild form of asthma; coughs now occasionally; throat and nasal passages inflamed. Has delirious spells, when his head becomes hot and face flushed. Is subject to headache. Has been under the charge of a clairvoyant physician in Boston. At the time of my first visit (Aug. 3d), he was taking three different kinds of medicines—black mixtures in large bottles. Ordered all other medicines to be discontinued, and the following to be taken:—

R. *Acidi carbolic, ℥ xlviii.*;

*Aquæ cinnam.,*

*Aquæ puræ, āā ℥iiss.*

M. S. Take a teaspoonful in water five minutes before each meal. Diet bland and nutritious.

Aug. 5th.—Feels better. Says the medicine seems to go to the right spot. Has

not vomited since last visit. Pyrosis continues. Complaints of throat. Ordered gargle of tannin and glycerine.

Aug. 7th.—Up and dressed. No vomiting. Stomach decidedly better. Appetite good. Gaining strength. Pyrosis less troublesome.

Aug. 16th.—Pyrosis ceased. Throat better. Bowels somewhat loose. Ordered ferri et quin. cit., grs. v., ter die. Mixture to be continued.

Aug. 22d.—Has been to Amesbury to attend funeral of sister. No return of stomach symptoms.

In this case the improvement was doubtless partly owing to his leaving off the medicines he had been taking before; yet it seems to me almost a test case in showing the value of carboic acid in similar forms of dyspepsia.

#### INTERMITTENT FEVER SUCCESSFULLY TREATED BY THE IODIDE OF POTASSIUM AFTER QUININE HAD FAILED.

By S. L. ABBOT, M.D.

MAY 13th, 1869. E. S. D., law student, aged 26. Applied for treatment for intermittent fever, from which he had been suffering since the first week in April. The patient was a native of Ohio, and had had several previous attacks. On one occasion he had been treated successfully by an eminent practitioner of this city with sulphate of quinine. At that time he had taken the drug ineffectually for some time, in considerable quantities, not understanding the proper method of employing it. He was speedily relieved by large doses taken with the proper interval of time before the period of access, under his physician's directions.

During the present sickness the chills had recurred daily, and the patient had suffered much from almost constant, deep-seated pains of a rheumatic character, mostly in the chest and arms, which were most severe in the latter part of the day and at night, sometimes seriously disturbing sleep. There was some tenderness on pressure over the spleen, but no enlargement of that organ could be felt. Appetite much impaired.

R. Potass iodid., gr. v.;

Fl. ext. quassie, f5ss.

before each meal.

18th.—Patient reported that he commenced the use of the medicine on the 14th. On the evening of that day he had a severe chill, which lasted two hours, and was fol-

lowed by fever and profuse sweating, as usual. On the 15th he had another attack, but much less severe. There had been no recurrence since. The appetite was improving; the bowels were regular, and the patient felt much better generally. Directed to continue the use of the medicine until the 21st, when the evening dose was to be omitted.

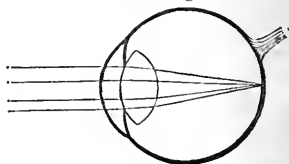
June 3d.—No chill since last report. Appetite said to be "enormous," "better than for three years." Patient says, "the medicine killed the ague in just two days." The pain in the bones ceased after the third day. It is worthy of remark that during the present attack, before applying for medical advice, the patient had taken quinine in large quantities, sometimes taking as much as twenty-four grains in a day, and in accordance with the directions previously received from the physician who formerly attended him, but without the least benefit.

I was led to prescribe iodide of potass. in this case from having employed it successfully several years since in a similar case, which had not yielded to sulphate of quinine, in which instance I was induced to employ it on account of the well-known, powerful influence which it exerts over the nervous system. In the number of the *Archives Générales de Médecine* for August of the present year, is a valuable paper on the use of iodine combined with iodide of potass. in intermittent fever, in which a number of cases of its successful employment are given.

#### CONGENITAL CATARACT IN CHILDREN SIMULATING NEAR-SIGHTEDNESS.

By B. JOY JEFFRIES, A.M. M.D., Ophthalmic Surgeon  
Mass. Charitable Eye and Ear Infirmary.

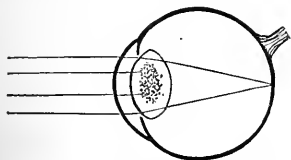
My experience with cataract in children leads me to call the attention of my professional brethren outside of the specialty, to one or two points that are deserving of attention. As we see in Fig. 1, all the rays



of light entering the pupil are brought to a focus on the retina. Congenital cataract is apt to affect the central portion of the crystalline lens, leaving the margin clear, through which the rays of light can pass to the retina, and there form a more or less



distinct image of the external objects. From optical reasons, the image formed by rays of light thus passing through the outer portion of the lens, is never so clear, and consequently vision never so good. In order that the rays of light may pass through the outer clear portion of the lens, the pupil must be somewhat dilated, as will be seen by the accompanying diagram, Fig. 2,



where the central rays are stopped by the cataract, and only the outer ones can pass to converge on the retina, the pupil being dilated. It will also be seen that the light may get into the eye sideways, as it were, between the edge of the pupil and the opaque portion of the lens. Therefore the little child with cataract seeks to avoid the stimulus of light in order to keep the pupils large, by turning his back to the window, contracting his brow and partly closing the eyelid, or, in other words, *imitating the appearance of a person who is near-sighted*. Moreover, in order to obtain larger pictures on his retina, or to get the light *sideways*, he holds the book close to his eyes, perfectly simulating what a near-sighted person without glasses must do. Meantime, the opacity of the crystalline lens may be of such a character, or so far back in the lens, that the pupil can to the unaided eye appear quite black, as it naturally does; and thus even the family physician may be deceived into believing the child is simply *near-sighted*; and it is consequently allowed to grow up without the ophthalmic surgeon being consulted. The latter can, of course, by means of the ophthalmoscope and *side light*, immediately detect the slightest opacity of the lens. How often do we hear, "Well, my doctor says the child is near-sighted, and thought I had better bring it and see if something couldn't be done for it. It seems dreadful slow about learning." The slightest examination with lateral illumination would have revealed the cataract.

The earlier congenital cataracts in children are operated on, the greater the chance of restoring or retaining useful vision. The cataract itself generally continues to change, so as to render it less easily removed from the eye, or liable to complicate an operation. Moreover, a retina deprived of its proper

stimulus of light seems not to be properly or fully developed with the rest of the eye. Consequently, even if we succeed in clearing the pupil and admitting light freely to the retina, patients will not then have the power of vision, or the appreciation of objects, which they would have had if they had been operated on earlier. This the ophthalmic surgeon too often sees, and he may even be blamed for not having accomplished what would be a miracle. The operations for cataract in children are comparatively slight, and, in these days of ether, of course not in any way to be dreaded. Again I would repeat, the earlier they are done the better. The trustees of the Royal London Ophthalmic Hospital, in a late annual report, call the special attention of the public to the necessity of bringing children for operation at an early period, instead of allowing their eyes to be damaged by delay. The average age of the last five hundred cases brought there was *seven years*. To show the necessity of my directing physicians' attention particularly to this point, I would say that the average age of the patients with congenital cataract brought during the last four years to the Massachusetts Eye Infirmary, Boston, was *twelve and a half years*.

Finally, I would again remind physicians, when they notice the little ones shunning the light, holding the book near to or sideways, and the parents complaining that they seem dull in learning their letters and lessons, to remember that *cataract*, and not simply near-sightedness, may be the cause, although their eyes may look perfectly natural without ophthalmoscopic examination.

## Hospital Reports.

### BOSTON CITY HOSPITAL.

Surgical Cases in the Service of Dr. GEORGE DERRY.  
Reported by Mr. GEO. B. STEVENS, House-Surgeon.

*Group; Tracheotomy; Recovery.*—The patient, *ret.* 11 months, before being brought to the hospital had been treated for forty-eight hours by a member of the medical staff, who sent her in with the request that tracheotomy be performed at once. When brought in the respiration was labored and sonorous, and the child appeared very feeble. No false membrane was to be seen. The operation was done under ether by Dr. Derby, at 1, P.M. On account of the very small size of the trachea some little difficulty was experienced in entering it. A very considerable amount of frothy mucus

was ejected as soon as the trachea was opened. The ordinary double tube was inserted, and the patient put in a room the atmosphere of which was made very moist by steam. Very great relief from the distressing symptoms present at the time of entrance was experienced as soon as respiration had been fairly established through the tube, and the patient was able to take the mother's breast with little difficulty. During the afternoon and evening the tube was cleared every hour, and through the night at intervals of two or three hours. Six hours after the operation the respirations again became labored, but continued so for a short time only. The child slept a considerable portion of the night; distressing dyspnoea, however, was produced whenever an attempt was made to remove the inner tube for the purpose of cleaning it.

The use of the tube was continued for five days only, during which time respiration was for the most part very comfortably performed. No false membrane appeared, but the secretion resembled, in color and consistency, melted glue; it became each day less abundant, until when the tube was removed it had nearly disappeared.

A week after the removal of the tube there was moderate discharge from the opening, while but little air passed through it. Five days later (the seventeenth after the operation), when the patient left the house, the discharge had entirely ceased, the wound had nearly closed, and no air escaped through the opening; respiration was perfectly natural.

*Colles's Fracture of both Forearms.*—The patient, æt. 16, fell through the scuttle of a building, passing three stories in his descent, and in the basement struck first upon his extended hands and then upon his back. When brought to the hospital the "silver fork deformity" of Colles's fracture was very marked in both forearms, more so in the right. The radius of the left arm was found to be broken just above the wrist; the radius of the right was broken somewhat higher up than the same bone of the left, while the ulna was apparently bent. Forceful extension was made (the patient having been etherized previous to the examination), the deformity overcome, and both forearms put in two straight splints, anterior and posterior. The injury to the back, feared at first to be serious, proved to be only a sprain.

The splints were continued for four weeks, at the end of which time union was firm in both fractures, and with no deformity except a slight depression at the point

of fracture of the radius of the right arm. The movements of the wrist were good, and those of supination and pronation were little affected.

*Fracture of Leg and Ribs.*—The patient, æt. 45, fell from his team, and one of the wheels passed over him. When brought to the hospital there was discovered extensive comminution of both bones of the left leg at the lower third, while a wound on the inner side of the limb very nearly communicated with the fracture; the fifth and sixth ribs on the left side were broken, probably in two places, about on a line with the nipple.

The leg was placed in a fracture-box, filled with dry bran. Adhesive plaster was applied to the left side of the chest from the spine to the sternum, to moderate the motions of that side in respiration.

The leg became very much swollen, without much pain. The pain in the left chest, however, was excessive, but a broad swathe, completely encircling both sides of the chest, in order to make the respiration nearly abdominal, gave marked relief.

After ten days of favorable progress the patient seemed to be failing, complaining particularly of left side, near the site of the broken ribs. Auscultation revealed nothing abnormal. For nearly a fortnight following he was in a critical condition, but his strength was supported with stimulants, beef-tea, &c., and he was carried safely through. Four weeks after the accident improvement began, and progressed without interruption. On account of the extensive comminution it was found impossible to keep the fragments of the broken bones of the leg in perfect apposition, and in consequence some bowing at the point of fracture resulted, but the union was firm. The fractured ribs were not firmly consolidated until the end of six weeks, and then one of them presented a somewhat prominent spicula, but respiration seemed perfectly normal.

*HYDATID CYST IN THE BRAIN.*—The patient a female, had suffered first from intense headache. At the end of ten months her mind became feeble; later, vomiting of a distressing character set in, then difficulty in swallowing, retention of urine, and paralysis of the sphincter ani; and for five months before death, complete paralysis of the left side, dyspnoea, and feebleness of sight—first of the right eye, then of the left. After death, a large hydatid cyst was found, occupying the whole of the anterior lobe of the brain.—*Dub. Med. Press & Cir.*

## Reports of Medical Societies.

ANNUAL MEETING OF THE HEIDELBERG OPHTHALMOLOGICAL SOCIETY. REPORTED BY RICH. H. DERBY, M.D., ASSISTANT AT THE KLINIK OF PROF. A. VON GRAEFE IN BERLIN.

1st day, Sept. 4th.—Professor Arlt presented a telegram to be sent to Professor von Graefe, in Haiden, expressing the deep-felt regret of the members that the founder of the society should this year be absent. The chair was then taken by Professor Zehender.

Drs. Höring and Meyer read cases of luxation of the lens. The case of the first was of interest therapeutically. The lens being dislocated into the anterior chamber, the patient was ordered to remain quietly on his back for several days, until the lens resumed its old position. Calabar bean was then used to prevent a fresh dislocation.

Dr. Liebreich described the action of chloral hydrat, and showed some rabbits in different stages of hypnosis after the administration of this drug. Chloral hydrat consists of  $\frac{2}{3}$  chloroform and  $\frac{1}{3}$  formic acid. Its formula is  $C_2 H Cl_3 + C_2 H_2 O_4$ . In from five to ten minutes after a moderate dose the eye-lids of the patient begin to droop, and a quiet sleep follows, from which he can easily be aroused to answer a question, but into which he soon sinks back again. This sleep lasts often twenty-four hours. The dose is

R. Hydrat chlor. g̃m. 2.04.

Aq. dist.,

Syr. cort. aur., āā 15.0. M.

Dr. Berlin read on the disturbing influence of strong convex glasses on excentric vision.

Dr. von Hippel read on intraocular pressure. He explained the influence of the sympathetic nerve on intraocular pressure as a control of the circulation through action of the recti muscles. After iridectomy on a healthy normal eye he has found constantly a diminution of pressure. After division of the trigeminus, he found the bulb of the same side hard, pupil narrow, gradually more dilated, but not ad maximum. All estimates of the degree of the intraocular pressure must be made with a manometer, for the results of palpation are very insufficient. He proposed now, in order to study the action of the iridectomy on intraocular pressure, to do it on animals, kill them several months after the operation, inject the vessels from the interior of the skull,

and then examine microscopically for an obliteration of vessels.

Dr. Adamuk followed on the same subject. Dr. Wecker said that, in the iridectomy for glaucoma, the incision was of as much importance as the piece of iris excised. The incision must meet the sclero-corneal line. A certain degree of cystoid cicatrization follows all iridectomies for glaucoma. The action upon the intraocular pressure is to be referred principally to the incision.

Professor Arlt stated that the whole iris might be removed and yet the intraocular pressure be unchanged. But when affected by an iridectomy it was by a broad excision of iris, reaching up to the ciliary edges. Unless this were borne in mind the operation would be useless.

Professor Becker was led to anticipate a favorable result in glaucoma when the wound quickly healed, and the anterior chamber was readily restored. His prognosis was unfavorable when the anterior chamber remained long obliterated and the wound closed by a cystoid cicatrization.

Dr. Iwanoff had examined a great many cases of glaucomatous eyes microscopically, after an iridectomy had been performed. The membranes of Bowman and of Descemet grow into the wound, and there is an occasional fistula in its centre. On this anatomical observation Dr. Wecker based his theory that the wound was, after all, the principal factor in the relief of glaucoma, by reduction of the intraocular pressure. Especially too as the aqueous humor is secreted from the periphery of the anterior chamber, and a wound at this point might be regarded as a "drainage wound."

Dr. Berlin had had five cases of glaucoma, where, immediately after the operation, the acuteness of vision became very much reduced, and in one of these cases he found atrophy of the optic disc. Dr. Liebreich believed that in such cases the whiteness of the papilla was not to be regarded as an atrophy, but rather as a change dependent on the altered condition of circulation.

Professor Schirmer read a paper on accommodation by elevation and sinking of the visual line. According to him hypermetropes hold what they read lower than other people; while myopes hold their book so as not to direct the visual line very deep down.

Dr. Nagel spoke very favorably of the use of a collyrium of aniline, in chronic conjunctival affections and suppurative affections of the cornea, especially suppuration after extraction.

Professor Förster showed an apparatus for measuring the field of vision, and made some observations on the faultiness of the present system, his main objection to it being the fact that the eye cannot be at the same time accommodated to the point of fixation and to an object on the confines of the field.

2d day, Sept. 5th.—Dr. Wecker showed a simple fixed ophthalmoscope by means of which two persons could examine a patient at the same time, the image being caught on a transparent sheet of glass.

Dr. Leber spoke on disturbances in the perception of color. He had examined a large number of amblyopic cases, both with the spectrum and colored paper. The degree of amblyopia does not correspond to the disturbance in the perception of color, which in choroiditis and retinitis is unimpaired. Red color-blindness is the most common. In two cases a disturbance in the perception of color preceded the amblyopia and the changes visible in the optic disc. There is a certain class of cases where the ordinary methods employed do not determine a central scotoma, but where, nevertheless, the perception of color is very much impaired over the central portion of the retina. In nearly all cases the central scotoma included Mariotte's blind spot. In many of the cases of central scotoma there were opacities of the substance of the retina along the course of its vessels. Among the causes of the scotoma are the abuse of alcohol and tobacco. It occurs very often among engine drivers, especially among people employed very much in the open air, and exposed to great changes of weather. In one case it was hereditary.

Dr. Liebreich drew attention to the fact that in the distribution of the optic nerve fibres, those that started from the upper and lower outer quadrants of the disc terminated on a horizontal line; and that others pass directly horizontally from the disc to the macula lutea.

Dr. Iwanoff read on the pathology of lymphatic or phlyctenular conjunctivitis. He mentioned the fact that the corneal nerves are surrounded by an interspace. This space he found here filled with cells. Beneath the epithelium were cells, but the epithelium itself was unchanged. Beneath Bowman's membrane were cells. Some of his preparations showed the epithelium lifted up by the collection of cells beneath it.

Dr. Reusz presented a paper on astigmatism after the operation for extraction of cataract. The astigmatism was determined with the ophthalmometer, and the measure-

ments of the curvature of the cornea made before, as well as after, the extraction. The curvature in the horizontal meridian was greater after the operation, that in the vertical less. The degree of the astigmatism depends on the period after the extraction at which the examination is made. The degree of the astigmatism is also dependent on the method of operation. After the old flap extraction the astigmatism was always greater. Dr. Javal reported results very similar, and believed that an examination, made six months after the extraction, would give a constant result. He also read a paper on binocular vision.

Dr. Strawbridge reported some measurements of the lens, and Dr. Mauthner read on the determination of the acuteness of vision.

A long telegram was received from Professor von Graefe, advising, instead of an iridectomy, an iridotomy in cases of closure of the pupil after the irido-cyclitic process following extraction.

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OBSTETRICAL SOCIETY OF BOSTON. SECRETARY,  
DAVID F. LINCOLN, M.D.

JUNE 12th, 1869.—The Society met at the house of Dr. Homans, at 7½ P.M., the President, Dr. Buckingham, in the chair.

Dr. COTTING reported a case.

A woman, aged 30 years, a fortnight before her first labor was expected, was surprised by repeated discharges of bloody water, of large amount, accompanied with peculiar "squeezing" sensations in region of pelvis. The next day slight pains came on, but the os was not dilated. On the third day, however, labor progressed, the os being very rigid and dilating very slowly. The child's head came down into the pelvis, presenting the vertex nearly, with the face to right ramus. The head had passed about two-thirds through the os, but seemed tightly held by it, locked, as it were, by the rim of the os, when the patient appeared exhausted and the pains ceased. Forceps were resorted to, but great difficulty was experienced in passing the blades over the convexity of the head and into the os, so firmly did it enclose the head, making as it were a groove into it. As the head passed the external organs, a little loop of the cord was found to be passing with it, completely compressed. The head being born, the same difficulty occurred in disengaging the shoulders, which were locked similarly to the head. The cord was also around the neck of the child; and although

every effort possible was made the child was lost. He had never met with a case having such and so many peculiarities and complications. Child measured 20 inches in length; head 13 inches in circumference; shoulders 15 inches; weight, naked, 7½ pounds.

Dr. SINCLAIR spoke of the suddenness with which the head—in faces to pubes position—sometimes starts during traction by the forceps. This, he said, was often not anticipated, and nearly always caused rupture of the perineum.

Dr. SINCLAIR spoke of a case of a kind not alluded to in systematic works, although not of very infrequent occurrence, it would appear, as several instances of the kind had been reported to the Society by himself and others within a few years. The woman was delivered at 8, P.M. Five hours afterwards she was alarmed by a sudden discharge from the vagina of a warm fluid (estimated at about one quart), which on examination was found to be only a watery substance slightly tinged with blood. There was no recurrence.

Dr. COTTING spoke of a similar case, which he had reported to this Society, where, some hours after delivery, his attention was called to what seemed a second membrane, containing a large quantity of water. This he attempted to remove whole, but was unable to do it.

Dr. WELLINGTON mentioned a similar instance, where the bed was drenched by the discharge, twelve hours after delivery.

Dr. BUCKINGHAM mentioned three cases of what might be called Doubtful Pregnancy.

1. He was engaged to attend on the 31st of March, that date being forty weeks from the last menstruation. It is now seventy-three days, and the woman is not yet delivered. Four weeks ago she had a slight discharge per vaginam, lasting less than one day. (Was delivered June 17th, seventy-eight days after the expected time.)

2. Fourth pregnancy. March 1st, said she was eight weeks pregnant; underwent a miscarriage at that time—as she supposed—but although everything discharged was examined, no ovum was found. Eight weeks then again passed, without any hæmorrhage; then a slight return, lasting twenty-four hours. Hæmorrhage again in four weeks; again in three weeks. The abdomen increases in size; there is no fœtal sound; vaginal examination not allowed.

3. Forty-three years old. Eight children. Dec. 3, flowed five or six days; not since. Supposed herself pregnant. A week ago, was sure she felt motion (June 5th). Two

or three days after was frightened; since when, the areola has faded out, and the milk, which could formerly be milked out, is gone. Vaginal examination:—Enlargement of uterus—os not permeable to finger—cervix three-fourths inch in aperture—ballottement shows the presence of a floating body in the uterus—there is bearing-down pain—the menses are twenty-six weeks absent—the fœtal cardiac sounds are not heard.

*Conjectural Dropsy of the Amnios.*—Reported by Dr. REYNOLDS.—M. R. is twenty-three years old. She has been married three years. Till last October menstruation had been regular and uninterrupted. She had been ill with ascites and cedema of the legs. For the ascites she was twice tapped. The second time, twelve months since, six quarts of fluid were removed. From that time she convalesced and thought herself well; menstruating regularly till the period which closed on the 20th of October, 1868. She had morning sickness in the months following. She has never quickened. To-day, June 11th—by percussion uterine dullness and intestinal resonance, especially in right lumbar region, are well marked. Fundus is a little higher than half way from umbilicus to ensiform cartilage. The uterine walls externally and when reached through the vagina are everywhere exquisitely sensitive. There is a nipple-like prominence, representing the cervix, central in the vagina, flaccid, soft, easily admitting the first joint of the forefinger. The os internum is closed, no part of a child to be felt. Externally small parts felt in right half of uterus, dorsal region in left. Fœtal heart feebly but distinctly heard in left iliac region, also at other points in right half. Placental souffle, so called, heard with Cammann in repeated examinations in left iliac region persistently, nowhere else—nipple dark, well-developed—areolæ dark, with follicles turgescient, half an inch only in breadth—mammaræ full; veins not marked.

There is slight cedema of legs, of which patient makes much complaint. The urine examined is normal.

From which symptoms the following conjectural diagnosis is offered:—

The enlargement is intra-uterine.

There is very little doubt that the development of the uterus is the result of impregnation.

The enlargement apparently that of a little more than eight months, may correspond in reality with gestation of seven and a half months, as supposed by the patient.

Dropsy of the amnios, a not improbable occurrence, considering the history of the woman, offers the most plausible explanation of the absence of perception of fetal movements, the extreme tenderness of the uterine walls, and the perhaps exaggerated size of the uterus.

Dr. AYER spoke of a case of atresia papillæ in a new-born child, and alluded to the fashion prevailing among nurses in the old times, and especially in the country, of milking a few drops of fluid from the nipples of female infants. It was (by them) considered very important for the welfare of the future woman.

Dr. HOMANS finds that certain nurses will squeeze or "draw" the infant's breast, unless they are forbidden, "to prevent sore nipples."

Dr. COTTING confirmed this remark from his own experience.

*Pelvic Cellulitis; the Abscess discharged per Rectum.*—Dr. ABBOT reported the case.

Mrs. R., aged 25, was admitted to the Massachusetts General Hospital May 18th, 1869. Has one child, 7 years old; since its birth has not been pregnant. Four years since, patient reports first noticed the tumor for which she entered the Hospital. This has not given her much trouble, however, until a few months since. During the past four months she has been flowing without intermission, four or five days previous to entrance the hæmorrhage commencing immediately after sexual intercourse, in which she thinks she sustained some injury. Now complains of constant pain in right hip and iliac region, so severe as to compel her to keep to her bed. Bowels constipated.

On the 20th, patient reported that she had passed no urine since entering Hospital, and a pint of water was drawn with a catheter.

Physical examination.—Abdomen quite tender over the right iliac region, where a uniform hardness is felt, extending from the pubes a little to the right of the median line, obliquely upwards and outwards to a point an inch above the level of the anterior, superior spinous process of the right ilium. On examination *per vaginam*, the os uteri was found quite low, being just behind the os pubis; it was open enough to admit the tip of the forefinger, but was otherwise normal. About two inches above it, on the posterior surface, an abrupt protuberance was felt, quite firm and very sensitive to the touch, extending backwards to the sacrum, and quite broad from side to side; the anterior wall of the uterus was

also quite full, firm and tender. There was considerable leucorrhœal discharge.

The patient suffered much severe and constant pain, requiring the use of opiates and various anodyne local applications. The urine was drawn daily by catheter.

On the 22d, examination of the urine showed it to be of specific gravity 1015. Acid. Albumen in slight quantity. Pus corpuscles in considerable number. The albumen was probably from the pus, and that probably came from the vaginal discharge.

On the 23d, castor oil was ordered, to relieve constipation. This produced several fecal evacuations, followed by a discharge of what was described by the nurse as looking like "blood and matter." Careful examination over the seat of the former tumor failed to discover any trace of it. The right iliac fossa was uniformly resonant on percussion, and was much less sensitive than before. The urine could be passed voluntarily.

Vaginal examination.—The uterus has risen at least an inch from the position it occupied during the previous examination. Tenderness of body less, but still considerable; fulness of posterior portion less; os as before.

From this time the patient steadily improved, was able to sit up and walk about the ward, and on the 10th of June she was discharged, nearly well. No discharge of matter by the bowel was observed after that of May 23d. Nothing abnormal in the urine, except a few crystals of oxalate of lime.

A question of diagnosis may be raised, whether the tumor in this case may not have been fecal. It did not, however, present the usual characters of such a tumor, being of a uniform hardness, not oval or rounded in shape, and completely filling the right iliac fossa. It was evidently connected with great engorgement of the uterus, which it pressed downwards and forwards, so as to materially interfere with the functions of the bowels and bladder.

The Society adjourned until the 9th of October.

ALTHOUGH dentists have long since discarded the use of electricity for lessening pain in extracting teeth, Dr. Pallas, of Bordeaux, has been attempting to bring it again into notice, believing that its failure has been caused by the irregular distribution of the electricity. He has invented an instrument which he considers will obviate this difficulty.—*Dublin Med. Press & Circular.*

## Bibliographical Notices.

*Rules for the Course to be followed by the Bystanders in case of Railroad Injury, when Surgical Assistance cannot be at once obtained.* Prepared by JOHN H. PACKARD, M.D. Philadelphia, Pa. Sheet form.

They are issued (as stated in the accompanying circular) "not to place them before the public so as to suggest the idea of accident, but to put them in the private offices, freight depots, and express cars and shops of the railway companies, in order that the employées may not only become familiar with them, but may have them at hand in case of the occurrence of accident and personal injury." Another paper is headed "Injury by Machinery," and is intended for similar use in factories, machine shops, and other places where machinery is used. That these publications may be the means of saving life and of preventing unnecessary suffering cannot be denied. It only remains to express the hope that they will receive, as they deserve, the commendation and support of every man connected with railway companies or other places where they will apply. H. H. A. B.

## Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 7, 1869.

### NOTES FROM FRENCH JOURNALS.

*Syphilis from Vaccination.*—This question has been discussed at the *Académie de Médecine*. A writer in the *Gazette Hebdomadaire* says it was started the day when it was demonstrated that syphilis was inoculable through the blood. This fact being admitted; granted also the immense liability that either through difficulty in operating, or through negligence on the part of the operator, or through too complete draining of the pustules, the virus contains blood; these things being considered, we are much less inclined to sift the facts hitherto alleged relative to vaccinal syphilis, than to acknowledge the occurrence of it *à priori*, by a sort of logical necessity. From this point of view, the only one

of practical interest, the question if the pure virus unmingled with blood may contract the syphilitic venom, presents itself only as a sort of curiosity. That point remains doubtful, even with some of those who have with the most zeal and authority sounded the alarm as to the transmission of syphilis by vaccine matter. The true question is not here, and all the experiments cited by M. Guérin in which vaccine matter collected from syphilitic patients has given rise only to legitimate pustules, add nothing to what has been said and done by M. Viennois, the most declared partizan and one of the instigators of the theory of vaccinal syphilis.

*Importance of Traumatic Lesions of the Uterine Neck.*—We translate the opening paragraphs of an article on this subject by Dr. O. Saint-Vel, in the *Gazette Hebdomadaire*. In proportion, he says, as gynaecological experience increases in the hands of the practitioner, it leads, not to diminished confidence in the efficacy of surgical interference, but to increased prudence and reserve in its application, stamped with a certain amount of hesitation in the employment of it. The uterus, indeed, is not an organ which supports indifferently, and in equal measure, the various traumatic lesions. He uses the term *uterus* in default of information as to whether the susceptibility of the body is different from that of the neck—the part necessarily involved in every exploration of, or operation upon, the uterine cavity. The susceptibility of the neck, *nil* in a great number of cases, is extreme in others, and furthermore varies according to the nature of the traumatic agents. Nothing in the anatomical or physiological disposition of the organ, nothing in the general condition of the patients, and even in the morbid influences surrounding them, accounts for these differences, singular as differences of election, and so grave sometimes in view of the consequences. The cervix bears cauterization, whether made with acid or with a salt like nitrate of silver, or chloride of zinc, or better still with the hot iron. It does not bear mechanical action so well, whether it be that of traction with hooks, subjecting the ligaments which follow the uterus in its

movements to stretching and sudden *distention* [relaxation?], or that of dilatation by sponge tents or other foreign bodies. But of all traumatic injury the worst borne is that produced by a cutting instrument. The reaction is out of all proportion to the lesion. The gravest complications on the side of the uterus and its appendages, or on that of the ovary and the peritoneum, are liable to follow slight traumatic agency. Death may be the consequence of the excision of a hypertrophied labium, or even of incision of the cervix.

These propositions M. St.-V. proceeds to justify by citing three cases from the practice of M. Demarquay. Fortunate, he says, as is his ordinary experience, M. D. has seen in a few rare instances, when a slight operation upon the cervix was necessary, and was done with all the care that could be desired, grave symptoms set in which were not at all in accordance with the impunity apparently proclaimed by the daring of American uterine surgery.

*The Ophthalmoscope in the Diagnosis of Diseases of the Spinal Marrow.*\*—We read also in the *Gazette Hebdomadaire* that M. Bouchut presented to the *Société de Biologie* a treatise intended as a complement to a previous paper relative to this means of diagnosis as applied to diseases of the encephalon.

The relation between diseases of the spinal marrow and certain disturbances of vision, we are reminded, has been established by a great number of observers, and the facts do not date from to-day. M. Bouchut mentions cases of paralysis, sclerosis, paralysis agitans, locomotor ataxy, in which disturbances of vision were observed; cases resting on the authority of Hutin, Cruveilhier, Jacoby, Romberg, Landry, Duchenne, Türck, Charcot and Vulpian, Beaunnetz, and many more writers, the enumeration of whose names would add nothing to the validity of the facts. But M. Bouchut does not stop here. With him, it is not merely the matter of the co-existence of certain functional disorders of vision with chronic diseases of the spinal marrow: he has also observed that these

troubles exist in acute maladies of the spinal axis; and what is of special importance, it is the opinion of the author, that the exploration of the interior of the eye may enable us to detect diseases of the spinal cord. In the cases which M. Bouchut reports, he says that at the commencement of the malady, while its existence was yet doubtful, he has been able to affirm its presence, through the results furnished by the examination of the interior of the eye. There was in these cases a commencement of optic neuritis and of retino-choroiditis, which announced the rachidian lesion; and according to his researches, these ocular affections should be considered as the point of departure of the amaurosis with optic atrophy which develops ulteriorly. This mode of commencement had seemed to him interesting, and completes, he says, the anatomical investigation of the spinal amauroses due to a reflex neuritis of the optic nerve. The lesions claimed by M. Bouchut to be demonstrable are hyperæmia of the papilla, total or partial; sero-sanguineous effusion into the retina at the outset, and papillary atrophy toward the close of diseases of the spinal marrow. The author thinks it will some time be possible to connect disturbances of vision with certain particular regions of the spinal cord; as for instance, to establish a different influence for the anterior columns, from that of the posterior. He also invokes the data of Cl. Bernard, Budge, and Waller, to show that the lesions of the optic nerve produced by rachidian diseases are the result of ascending reflex action, and are brought about by the intervention of the great sympathetic.

Therefore, according to M. Bouchut, the presence of hyperæmia of the optic nerve, a reddish color, with suffusion (*diffusion*) of the papilla, and partial or total atrophy of this part, coinciding with feebleness and numbness of the lower limbs, indicate the existence of an acute or chronic disease of the spinal cord.

In the same journal is an account of *An Instrument for the Discovery of Metallic Bodies in the Tissues by means of Electricity*. The instrument was invented by M. Favre. The principle of it is of the simplest. Metals

\* In a former number we gave an extract from the *Dublin Medical Press and Circular* in which the conclusions of Bouchut on this head were briefly summed up.



being conductors of electricity, if two probes are inserted into the tissues of the body without allowing the rods to come in contact with each other, the two probes being in communication with the poles of a battery, then, at the moment when the probes touch a ball or a fragment of a shell, the circuit will be completed, and the establishment of the current may be shown by the galvanometer. But, a strong charge will establish the current through the fluids contained in the flesh, while a weak charge would produce too feeble an oscillation of the galvanometer to be conclusive proof of the presence of a foreign body. M. Favre has, therefore, brought into requisition the index of the inductive apparatus, which has been shown by Cl. Bernard to be incapable of acting through the agency of fluids alone, even though the charge be strong enough to decompose water. With this apparatus, the interposition of a metallic body is necessary for the passage of the current.

ANTISEPTIC TREATMENT OF WOUNDS. Letter from Dr. J. C. WARREN. *Mr. Editor*,—Having recently had the privilege of visiting the wards of Prof. Lister, at Glasgow, it may prove of some interest to the readers of the *MEDICAL JOURNAL* to learn the latest modifications he has made in the antiseptic treatment of wounds.

This subject still continues to excite considerable interest in most English cities, and has been taken up and employed successfully in some of the continental schools. Although this system has been condemned by many distinguished surgeons, it has not been by any means universally so, and still claims several enthusiastic supporters in Great Britain.

It may be as well to touch upon his germ theory of putrefaction and the process of healing by scabbing, although the subject has been very clearly and elaborately exposed by him in a series of articles which have appeared during the last eighteen months in the *Lancet* and *British Medical Journal*. The germ theory may be briefly stated thus:—suppuration in wounds is caused by an irritation produced by the presence of germs or organisms which find their way into a wound, and there multiply and cause putrefaction.

Putrefaction, then, is the exciting cause of suppuration in a wound: can this be

prevented, the largest wound may heal without any secretion of pus. This process of healing, such as may take place in a large lacerated wound of the leg accompanying compound fracture, is not considered by him to be healing by "first intention," nor indeed "by granulation." It is rather an intermediate process. Given a wound sufficiently large and accompanied with sufficient loss of substance to be incapable of healing by first intention—the extravasated blood and serum cover the surface of the exposed parts and form a clot which serves the purpose of a protecting scab. Provided now that no living germ is introduced beneath or penetrates this covering, the cell formation takes place quietly in the parts below, while the clot itself becomes organized in the same manner as a thrombus in an artery. The clot or scab establishes in this way a vascular connection with the parts beneath. Meanwhile, cicatrization continues, and as the edges of the wound approximate each other the scab is compressed on all sides, and finally atrophies and comes away. If it is cut into, however, before union is complete, it will bleed. When a wound heals in this manner, no pus whatever is found upon the dressings. They may be stained by the escape of a small amount of serum and what is called a mucous discharge. This fluid, examined carefully under the microscope, is found to contain no pus corpuscles whatever.

The antiseptic treatment of wounds has undergone a variety of modifications since Mr. Lister first began his experiments, some two years ago. Most of these have been described at length in the *English Journals*, and will hardly need repetition here, especially as his present method differs from them in several essential particulars.

The dressings are now changed daily, and the tin plate and the paste have been discarded, and a very thin piece of oil silk and a lac plaster\* are used in their place. After an operation the wound is washed with a solution of carbolic acid, one part to twenty of water, and the edges are brought together by antiseptic sutures. The nozzle of a syringe is then introduced into one end of the wound, which is freely syringed out with the same solution. A strip of very thin oil silk, rendered antiseptic by

\* The receipt as given us by the New Apothecaries' Company at Glasgow, is the following:—

Take of Shellac 3 parts,  
Carbolic acid 1 part.

Dissolve with gentle heat, and spread with machine; when spread, coat with a solution of gutta percha, 1 + 16 of bisulphate carbon.

being dipped into the acid solution, is then placed upon the wound of a size just sufficient to cover it. The object of this is to protect the wound from the carbolic acid contained in the dressing next to come. This consists of the lac plaster. Before application the plaster is stripped off from its cambric, by moistening the cloth in water. This is done in order that the plaster may more easily adapt itself to the parts about the wound. The gutta-percha layer must also be rubbed off. The size of the plaster thus applied is sufficient to overlap the wound an inch or two in all directions. Above this is applied another much larger piece of the plaster, with its cambric on, and the whole is secured by a bandage.

The object which he tries to accomplish is to *blockade* the wound in all directions by dressings exhaling carbolic-acid vapor, while the wound itself is not touched by the acid at all. The small amount of the acid left in the wound soon ceases to exert any irritating influence, and the wound is exposed only to the vapor of the acid which penetrates the oil-silk covering. Mr. Lister has found by experiment that the vapor of the acid which passes through a piece of oil-silk is sufficient to disinfect any animal matter which may be on the other side. Any secretions which exude from the wound and become exposed to the air are thus thoroughly disinfected before they have a chance to regurgitate. The same fate awaits any germ which tries to find its way in with them.

If there is any discharge from the wound the dressings should be changed daily. The upper dressing being removed, the lower layer of plaster, which adheres closely to the skin, is carefully peeled off from one end and with it the oil silk. As the wound is exposed it is syringed with the 1-40 solution, and this is continued until the new dressing is applied.

Plaster dressings cannot be applied in all cases, for instance on wounds about the genital organs. In such cases a piece of lint soaked in a solution of one part to five of oil is used, but this must be changed frequently.

We should not omit to add that the parts to be operated upon should be well washed with a weak solution of the acid, and if there are any folds of skin or parts covered with hair in the neighborhood, these should be rubbed hard with the 1-5 oily solution, to destroy any organisms that may be lurking about.

A word here about the antiseptic ligature and suture. A detailed account of the

ligature of arteries on the antiseptic system has been given by Mr. Lister in an article in the *Lancet* of April 3, 1869, and he still continues to employ ligatures prepared in this way. This, in brief, consists in the employment of fine catgut ligatures steeped in an oily solution of the acid of the strength of one part to five, with a small quantity of water diffused through it. It has been found by experiment, that such a ligature not only does not exert any irritating influence on the parts about, but eventually becomes organized and intimately connected with the outer coat of the artery and the surrounding tissue. At present torsion is used almost universally in England for all the smaller arteries, and the writer had the opportunity of witnessing an amputation of the breast by Mr. Lister, where not a single ligature was used.

Up to the present time he has contented himself with employing silk for sutures—with one exception, however. This was an operation for the removal of a small tumor on the forehead, where catgut sutures were used. The wound was dressed antiseptically, and the patient left for the country and was not seen for several days. On his return, the dressings were removed, and the wound was found to have healed without suppuration. The sutures remained, to all appearance, unchanged; but on seizing one of them with the forceps in order to cut them with the scissors, the external portion came away easily, leaving *no trace behind* of the part which had been buried in the edges of the wound. The same was the case with all the other sutures. He is of the opinion that in this case the deep portion of the suture had either become organized or was absorbed. He purposes to experiment further in this direction to see if this result is constant.

The antiseptic dressing has been found to be most successful in the treatment of abscesses, compound fractures, excisions of the breast, and in those wounds to which the dressing can be easily and accurately applied. He has not had uniform success in the treatment of amputations, though he has found them on the whole to do much better than when dressed according to old rules. During the last two years that he has employed this system he has had but one case of erysipelas and two of pyæmia. This in wards, which contain on an average some sixty patients, and in an infirmary which has for its site an old cholera burying ground, is certainly something to boast of.

The writer has had the opportunity of

conversing at length with Mr. Lister on this system, and also with many prominent English surgeons, and can truly say that nowhere has he seen the details so carefully attended to as in Mr. Lister's wards. Most surgeons, in England at least, have contented themselves with following his directions in a general way, frequently omitting some important particular. For instance, one writer states that he took great pains to wash out his sponges in water both before and during the operation! The very thing he should have taken care not to do, unless the water had been previously rendered antiseptic.

Whatever the merits of the antiseptic system may be, it is very evident that a proper appreciation of them can never be arrived at without that scrupulous attention to detail which has so frequently been insisted upon by its originator. Very truly yours,  
J. C. WARREN, M.D.

**PRIMARY DRESSING AFTER AMPUTATIONS.** REPLY TO DR. SQUIRE.—*Mr. Editor*.—The only comment which it seems necessary to make upon the report of cases of pyæmia, after amputation of the thigh, occurring in my service at the City Hospital in April and May, and in which the treatment is considered injudicious by your correspondent of last week, is this:—Instead of *tight* bandage, read *firm* or *snug* bandage. The report was not seen by me until it appeared in print.

I cannot believe that pyæmia would have been avoided in these cases even if the flaps had been made "with a scalpel" and secured by "silver pins" instead of silk sutures. Pyæmia and erysipelas appeared at the City Hospital in April last, and disappeared in June. Of its causes I cannot speak with confidence; it was not unknown outside the hospital in those months. It ceased to vex both my colleague and myself when the season arrived which permitted free ventilation of the wards by open windows.

Truly yours,

GEORGE DERBY, M.D.

**ADVERTISEMENTS OF SPECIALISTS.**—*Mr. Editor*.—I notice, in the last number of the JOURNAL, Dr. Jeffries's refutation of the following statement in the *Richmond and Louisville Medical Journal*:

"Sichel, Donders, von Graefæ, &c. placard the streets with their advertisements—"

To this Dr. Jeffries very properly opposes  
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a general denial. A more specific refutation seems to me, however, desirable.

In the course of a two years' residence in Berlin, Utrecht and Paris, and of daily attendance on the clinics of von Graefæ, Donders and Sichel, I saw no sign and heard no mention of either advertisements or placards. Not one of these three teachers had even his name affixed to the door of the building in which his clinique was held.

Neither local authority or custom permit any procedures, in the way of professional advertising, on the continent of Europe, that would not be tolerated here. Rules in respect to this are even more stringent and their infraction visited with much greater severity.

Yours very truly,

H. DERBY.

Boston, Sept. 30, 1869.

**STATE BOARD OF HEALTH.**—The gentlemen commissioned by the Governor and Council to constitute the "State Board of Health," consisting of Henry I. Bowditch, Warren Sawyer and George Derby of Boston, Richard Frothingham of Charlestown, Robert T. Davis of Fall River, P. Emory Aldrich of Worcester, and William C. Chapin of Lawrence, met for organization at the State House, in Boston, September 15, 1869. On this occasion remarks were made by Dr. Bowditch, from which, as published in the *Boston Daily Advertiser*, we make the following extract:

"The establishment of our Board by the last General Court inaugurates this system of State medicine in Massachusetts. I think that this is the first State Board of Health established by any American State; at least, with objects as extensive as those now given to our charge.

"The law under which we act, while not specifying so much as the English law of '48, gives us the amplest powers for investigation and funds at our disposal for any legitimate purpose.

"Let us look for a moment at some of the general objects and duties involved in the act establishing our board.

"*First.* It directs the board to take cognizance of everything tending to public health, and of course requires us to endeavor to eradicate everything tending to public disease and death.

"*Second.* It directs us to diffuse among the people a knowledge of the means of obtaining individual and public health and of preventing disease.

"*Third.* We are ordered to investigate the effects of the use of intoxicating liquors

upon the industry, prosperity, happiness, health and lives of the people, and it is intimated that we suggest legislation on any or all of the subjects committed to us for investigation.

"Now in order that the workings of the board may become harmonious and of real service, it is a self-evident proposition that exact methods of procedure must be followed in all cases, and that certain by-laws for the legal governance of the board will be necessary, and which shall not be varied from except under special direction at a full meeting of the board.

"Dr. Bowditch then proceeded to suggest certain plans for the organization of the board, and continued as follows:—

"The law requires us to diffuse among our people any already established laws of public health, and also whatever we may hereafter discover on that subject. I look upon this feature of the law with deep interest, for I believe by it we *may* do much service to the people.

"How shall we diffuse this knowledge? Permit me to allude to a few evident methods:—

"A. By lectures from our secretary or from members of the board on various special subjects connected with public hygiene—such as ventilating and building and location of houses; on various well-known diseases capable of partial or entire prevention on knowledge of causes being given. It may be a question, moreover, whether we should not authorize the secretary to communicate with lecture committees of the various towns, and the American Literary Bureaus, and to make arrangements with physicians and others to deliver lectures relating to public health in various towns.

"B. By the secretary holding meetings in the various parts of the State for discussions on the subject; meetings analogous to those now held on education, agriculture, &c. He might invite the coöperation of local medical societies or special physicians. I have no doubt that such meetings, properly conducted, would attract the attention and interest of the public.

"C. By the publication in a compact form and the wide circulation of the pith, so to speak, of our general knowledge on public hygiene. How this should be done would remain an open question. If it could be done, there is no doubt of the good that would eventually result.

"D. By our annual reports to the legislature, which, I trust, will always be models of brevity and of compact learning—not a

word too much or a word for effect merely—and so thoroughly indexed, that even the busiest man on 'change can in three minutes get at the essentials, and be prepared to study the details of any part or parts he may wish further to examine.

"In conclusion, gentlemen, let me say that, while I feel alike our grave responsibilities and the dignity conferred on each one of us by his Excellency the Governor in his selection of us for these offices, I have at the same time no misgivings; but, on the contrary, the liveliest hope that this Board will faithfully and in an able manner perform its duties, and that thus it will become a real blessing to our State, not only at the present time, but long after every member of it has died. It will assuredly be such if we, the necessary originators of its various details, only look at our duties in the light of the broadest philanthropy, and, as far as in us lies, the wisest statesmanship, and finally with all the knowledge that modern science can at present give us.

"In making these introductory remarks, I have done only what seemed to be proper; but I hope that others will speak what seems to them good, so that starting on our new career with understanding minds and buoyant and willing hearts, we may vigorously inaugurate State medicine in Massachusetts."

At a subsequent meeting held September 22d, the "State Board of Health" was organized by the appointment of Henry I. Bowditch as chairman, and George Derby as secretary and executive officer.

"State medicine" is now initiated in Massachusetts. The subject is one which has attracted the attention and labors of prominent men abroad for a considerable time; and occupies constantly a large portion of the pages of the best Medical Journals in England, France, and Germany. Its practical application here has been entrusted to the best possible hands, and we trust our profession throughout the State will second the efforts of the Board of Health in every practicable way. Let us for very shame not be backward or supine, reflecting that the gift of the institution has been conferred upon us and the public as a free-will offering. The movement was initiated strictly speaking in the Legislature, and, we are told, was carried through without opposition, and without the interposition of medical men.

**HOT SAND BATHS.**—There are two establishments in Germany for the administration of this remedy; one at Dresden, the other at Köstritz. The arrangements at the latter place are thus described. The bath-tub is something like a sarcophagus, six or seven feet long, and resting upon wheels. This is brought up to the supply-pipe, leading from an adjoining chamber, and hot sand is poured upon the bottom to the depth of four inches. The patient, in a light bathing-suit, is then placed upon this layer, and the stream of hot sand is poured over him until every part of his body, with the exception of his head, is buried under several inches of sand, at a temperature of  $36^{\circ}$ – $40^{\circ}$  R. The whole is then wheeled into an airy chamber. In a few minutes a perspiration breaks out, so profuse that the aid of an assistant is continually required to wipe the face and head. The sand absorbs the moisture from the rest of the body, so that no discomfort is felt. The pulse increases in frequency, and the temperature under the tongue rises from  $1^{\circ}$  to  $1\frac{1}{2}^{\circ}$  R. The duration of the bath is one hour at most. On arising, a quantity of moist sand is shaken off, and the patient, after cleansing himself in a warm-water bath, goes to his own room, where he lies down and perspires for an hour.

The author of this account (published in the *Deutsche Klinik*, No. 33, 1869) was the victim of chronic rheumatism, following an acute attack, which for three months so nearly crippled him that on his journey to Köstritz he had to be lifted from one carriage to another. During four weeks he used a full-bath, as above described, every forenoon, and local baths of  $45^{\circ}$  R. for his hands, every afternoon. At the end of this time a considerable exudation in the knee-joints had disappeared; his hands, shoulders, and other joints could be moved freely, and he walked long distances with ease. The only disability that finally persisted was an angular stiffening of both little fingers.—*A. M. Centr. Zeitung*, No. 69.

D. F. L.

**RESIGNATION IN THE MEDICAL SCHOOL OF MAINE.**—Prof. S. T. Dana, of Portland, has resigned the Chair of Theory and Practice in the Medical School of Maine, and Prof. A. B. Palmer, of Michigan, has been appointed in his stead.

While the friends of the Institution will regret exceedingly that Dr. Dana has felt himself compelled to take this step in obedience to the demands of a large general practice, which rendered it impossible for

him to fully discharge his duties both to patients and to the school with its present location, they will be glad to be assured that he retains all his former interest in its prosperity; and in his connection with the Portland School for Medical Instruction and his labors for the development of the Maine General Hospital, he will still work as heartily as heretofore for the best interests of the profession in the State.

**DEATH FROM CHLOROFORM MIXED WITH ETHER.**—The patient had multiple tumors of the larynx and was about to undergo tracheotomy as preliminary to their removal.

The anæsthetic used was the mixture of ether and chloroform 2 to 1, the patient being in the horizontal position. The patient at first yielded gently to the influence of the anæsthetic, but soon became excited, raised himself once or twice almost to the sitting posture, when suddenly his pulse stopped, respiration ceased, the lips and face turned blue. After one or two ineffectual attempts to restore respiration, by the application of air, ammonia, and artificial respiration, Dr. Collins performed tracheotomy as rapidly as he could, and the tube was inserted. Artificial respiration was resumed, and kept up for half an hour; the chest was repeatedly inflated by breathing into the tube; the galvanic battery was applied, but all in vain.—*Medical Record*.

**CURE OF CAROTID ANEURISM BY DIGITAL COMPRESSION.**—A case of aneurism of the primitive carotid, successfully treated by intermittent digital compression of the arterial trunk, has been reported by M. Rouge, of Lausanne, to the Society of Surgery of Paris. The patient was 68 years of age, and a male. The compression was effected laterally, the thumb being placed against the anterior edge of the sterno-mastoid, the next three fingers under the posterior edge, and the artery being thus seized and compressed between them. Thus the pressure on the pneumogastric nerve was avoided. Digital compression was continued for seventeen days, for an average of seven or eight hours each day.—*Brit. Med. Journal*.

**LIKE OR DISLIKE.**—SIMILAR OR DIFFERENT. "The government of India is promoting the growth of ipecac in Hindostan." If there be any truth in the homœopathic maxim of *Similia Similibus Curantur*, we would say that the cultivation of ipecac would be popular among the Sikh tribes.—*Fun*.

## Medical Miscellany.

**APPOINTMENTS AT THE BOSTON CITY HOSPITAL.**—Dr. Charles E. Buckingham has been appointed on the Board of Consulting Physicians and Surgeons at the City Hospital, in place of Dr. S. D. Townsend, deceased.

Dr. W. C. B. Fifield has been appointed one of the Visiting Surgeons of the City Hospital, in place of Dr. F. C. Ropes, deceased.

DR. SYME, we learn from abroad, is gradually retiring from his professional offices. To the resignation of his professorship he has added that of his connection with the Royal Infirmary as surgeon. The Directors of the latter institution have bestowed on him the title of Consulting Surgeon.

A CORRESPONDENT asks if house-plants are injurious to the occupants of a room in which the former are placed. Certain flowers have been pronounced pernicious, as in an extract we gave last week. The same has been predicated of plants, and again from time to time denied. Will some one who is conversant with the subject reply to the question?

A CORRESPONDENT propounds the following question:—

“Why do those who have pulmonary consumption entertain a vivid hope of their recovery, even in the last stage of the disease? Why does this peculiar hopeful state of the mind obtain when the lungs are ulcerated, and the reverse state of mind in disease of the liver and the abdominal cavity?”

The answer to the second question may, perhaps, be the key to the first.

WE have received the following card:—

The Children's Hospital, No. 9 Rutland Street, Boston, for the medical and surgical treatment of children between the ages of 2 and 12. Application for the admission of patients may be made at the Hospital, at 9, A.M., on any day of the week except Sunday. Recent cases of accident received at any hour. The price of board, at present, is four dollars. A limited number of patients will be received on free beds. Patients not living in Boston received only on payment of the regular board. Relatives may be admitted to see patients on each day of the week, except Sunday, from 11 to 12.

**QUERY.**—On page 147 of our last issue, our friend Dr. Cotting, in speaking of cases of diarrhoea treated by watermelon, says, “their histories may furnish *fruitful* suggestions,” &c. Did he intend a pun?

THE readers of the JOURNAL will find this a *Derby-day* for us, with no losers on either side; and all a matter of *chance*, too. In fact, we told the compositor the entries were all *must-go-ins* (*must-go-ins*).

**HOMOEOPATHIC.**—In the report on Obstetrics, read before the American Institute, is the detailed

report of a case of “imperforate hymen” ruptured with Silica 6000!—*Pacific Med. & Surg. Jour.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.  
THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

As suggested in the concluding number of the last volume of the JOURNAL, the publishers intend to close Vol. IV, in December. It will be desirable, in order to prevent mistakes hereafter, that the regular series of twenty-six numbers in the volume be in some way shown on the face of the weekly issues, and the plan is therefore begun, this week, of occasionally so numbering them as to accomplish this object. More than sufficient matter over the regular issue of 16 pages weekly has already been given this year to make up for this shortening of time, and more will be given as press of matter may require—the double numbering being, if possible, confined to the issues comprising extra pages.

**TO CORRESPONDENTS.**—Communications accepted:—Bibliographical Notice by B. of a book of Politzer's—Citation relative to Displacement of the Heart—Translated Extracts from a Review by T. W. F.

**BOOKS RECEIVED.**—A Course of Practical Chemistry, arranged for the use of Medical Students. By William Odling, M.B., F.R.S., &c. &c. 11. C. Lea, Philadelphia. Pp. 261.—Sleep and its Derangements. By William A. Hammond, M.D., New York. J. B. Lippincott & Co., Philadelphia. James Campbell, Boston. Pp. 316.—The Pathology and Treatment of Stricture of the Urethra, and Urinary Fistula. By Sir Henry Thompson, F.R.C.S., London. From the third and revised London Edition. Henry C. Lea, Philadelphia. For sale by James Campbell, Boston. Pp. 360.—The Physician's Visiting List for 1870. Lindsay & Blakiston, Philadelphia. For sale in Boston by James Campbell.—Transactions of the Philadelphia Obstetrical Society. No. 1. Pp. 94.—The Physical Life of Woman: Advice to Maiden, Wife and Mother. By George H. Napheys, M.D., Member of the Philadelphia County Medical Society, &c. Philadelphia, George Maclean. Pp. 252.—Remarks on the Training of Nurses. Read before the American Medical Association by S. D. Gross, M.D., LL.D., &c., Philadelphia. Pp. 16.

**DIED.**—In Cornwall, Ct., Dr. S. W. Gould, aged 75.

**DEATHS IN BOSTON** for the week ending October 2, 118. Males, 58—Females, 60.—Accident, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 2—bronchitis, 2—burns, 1—cancer, 1—canker, 1—cholera infantum, 11—cholera morbus, 1—consumption, 24—convulsions, 1—croup, 3—cyanosis, 1—debility, 1—diarrhoea, 4—dropsy of the brain, 2—drowned, 1—dysentery, 3—scarlet fever, 3—typhoid fever, 8—gangrene, 1—hamorrhage, 1—disease of the heart, 4—infantile disease, 4—intemperance, 1—jaundice, 1—disease of the kidneys, 2—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 5—old age, 4—peritonitis, 1—premature birth, 1—rheumatism, 1—teething, 3—ulcers, 1—unknown, 6—whooping cough, 3.

Under 5 years of age, 50—between 5 and 20 years, 12—between 20 and 40 years, 33—between 40 and 60 years, 10—above 60 years, 13. Born in the United States, 82—Ireland, 22—other places, 14.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, OCTOBER 14, 1869.

[VOL. IV.—Nos. 12 & 13.]

## Original Communications.

### A CONTRIBUTION TO THE PHYSIOLOGICAL STUDY OF VERATRUM VIRIDE AND VERATRIA, WITH EXPERIMENTS.

By Drs. AMORY and WEBBER, LaGrange Street Laboratory, 1869.

**PREFACE.**—The experiments which will be related in this paper were performed with the assistance of Messrs. Wood, Bontelle, Bridge, Spooner, Putnam, Pierce, Brigham and Cutler. Many points of interest still remain uninvestigated; but, as it may be several months before experiments with this drug can be resumed, and as we think the results thus far obtained are in one or two respects an advance on what has been hitherto recorded, at least in the English language, we venture to present them in this, comparatively, incomplete state. We wish to call attention to the fact, that the historical investigations on this subject were not commenced, until after our experiments had been performed.

*Veratrum viride* was not brought into notice until a little more than two years ago. Several practitioners had used and found this drug to be of great value; but its advantage was not generally known until Drs. Cutter, Rickard and Ingalls, in behalf of the Middlesex District Medical Society, called the attention of physicians to its use, and prepared an account of their experience with it, which was published in the *American Journal of Medical Sciences*.

Dr. Cutter's monograph attracted attention in Europe, and the drug was experimented upon there.

*Veratria*.—Previously the alkaloid *veratria* had been studied, but this was obtained from the seeds of *veratrum sabadilla*, and seems in some respects only to imperfectly represent the virtues of *veratrum viride*.

Magendie experimented with an impure *veratria* in 1820. In 1829 Bardsley published an article on the Therapeutical Value of *Veratria*. In 1841 Dr. Gebhard com-

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pared the action of *veratria* and *strychnia*. These are a few of the authors referred to by Van Praag.\* A pricking or tingling, especially of the hands and feet, compared by some to the sensation produced by electricity, is mentioned by many; also, a sense of warmth followed by a feeling of coolness.

Van Praag noticed in several cases that the animals upon which he experimented had a peculiar spasm, which he likens to St. Vitus's dance, a stiffness of the limbs which ended in a dancing movement. He states that the cardiac pulsations were first increased and then diminished, irregular and then weak. The respiration was affected only when large doses were taken, when it was embarrassed or ceased entirely. He noticed, also, the weakness of the muscular power, but in his summary this seems not to have attracted his attention so much as the spasms. In some cases the pupils were dilated; there was evidence, also, of pain in the mouth or throat. Nausea and vomitings occurred constantly. No inflammation was seen in the *primæ viæ*. He performed experiments, also, on birds, frogs and fishes. His conclusions are:—

"The respiration and circulation diminish in intensity. The muscles lose their tension. The irritability of many nerves (especially the peripheric cutaneous nerves) is considerably lowered. After very small doses vomiting follows; often, also, diarrhoea, but this more frequently after large doses. The secretion of urine is not notably excited. Salivation is considerably increased. \* \* \* The stage of stimulation [*erregungsstadium*] is shown by accelerated respiration, increased frequency of the pulse, cramp-like tension of the muscles, increased irritability of the nerves. Death from *veratria* poisoning seems to proceed from paralysis of the spinal cord."

He states, also, that *veratria* acted in a similar manner upon man. In no case did he find any signs of inflammation, and the

\* *Veratrin Toxikologisch-pharmakodynamische Studien von J. Leonides Van Praag, in Virchow's Archiv*, 7, Band, 1854, s. 252.

results of *post-mortem* examination were entirely negative.

*Veratrum viride*.—Much has been written in regard to the use of *veratrum viride* in different diseases; and, so far as the record of cases gives an insight into the physiological action, this agrees with our experiments. The therapeutical and pharmaceutical character and uses of this drug are not, however, the subject of our investigation, and will be entirely disregarded.

Drs. Cutter and others investigated its action.\* They remark that the benefit derived from its use is due to its sedative power over the circulation and the nervous system. The reduction of the pulse is mentioned in almost every case (40 to 60 beats per minute in the course of twelve to eighteen hours), as well as the general depression from prolonged sedation. Generally there was no nausea after its use, though this symptom is mentioned by other writers. Most of the facts mentioned in this paper are, however, therapeutical, and are not included in the plan of our investigation.

Another paper† by the same authors gives one or two cases worth referring to. In the first case detailed below, the effect of the drug upon the respiration is noticed. The case was reported by Dr. Minot, of Boston.

CASE.—A young man, 18 years of age, with acute pericarditis, having an irregular pulse (96–116), took of Thayer's fl. ext. of *veratrum viride* gtt. iv. The respirations numbered 30 per min. He became more comfortable during the day. The pulse in the evening was 96. This was October 12th.

Date.	Pulse.	Resp.	Remarks.
Oct. 13	87	35	Had taken seven doses; stopped on account of vomiting. Resumed the medicine.
" 14	112	36	
" 15	112	30	Six doses taken; dose increased to gtt. v.
" 16	114	40	Took three doses.
" 17	112	24	(Pleurisy.) gtt. v. ev. 4 hrs.
" 18	96	22	Five doses; vomit. after last.
" 19	96	24	Four " nausea.
" 20	100	30	Three " "
" 21	96	28	Four " "
" 22	96		Five " "
23–25	100		

The medicine was omitted for a time, and then renewed, but neither pulse nor respiration were noticed particularly.

Another case‡ is reported by Dr. Forsaith, in which the pulse was reduced from 120 to 40, and the respiration was only 15, an over dose having been accidentally taken.

In another case,\* reported by Dr. C. S. Bishop, of Philadelphia, a medical student who had been injured by fireworks; the pulse, at first 100, was kept at 60 for thirty-six hours, and "from the time that the sedative influence of the *veratrum viride* became manifest he felt no pain."†

In the *Edinburgh Medical Journal*‡, Dr. J. Watson gives the results of experiments on himself and on several patients, from which we can derive some knowledge of the action of this drug. He took gtt. viij. of a tincture (made according to Dr. Cutter's direction) at 3 o'clock, P.M. Two hours after, his pulse was unaffected. At 5 o'clock he took another dose, and then had tea. At 6 o'clock his pulse was the same as at 3 o'clock. Towards 7 o'clock he was troubled with flatulence. Some minutes before 7 he began to feel nauseated and would have vomited, but restrained himself. The force and frequency of the pulse became diminished. There was griping of the bowels, sickness and weakness, with considerable pain in epigastric region; he had a heavy, dull headache, with, occasionally, painful throbbing in the temples. His pulse, 70 at 3 o'clock, was reduced to 64. The pain in the bowels continued, and he felt himself growing weaker; but as he wished to experience the full effects, at 7 o'clock he took another dose of eight drops. From 7½ he felt about as described above. Soon he became weaker and felt that he must vomit. The pain in his stomach and bowels became much more severe; a clammy cold sweat broke out on his brow, and at 7½ he vomited with much pain. While vomiting he required all his strength to support himself; his back became extremely weak; and, when a fit of retching came on, he felt as if he was going to be asphyxiated; he had one or two cold shivers; his feet and hands became cold and benumbed, though there was a large fire in the grate; the cold, numb feeling crept up the legs and arms, and, at last, his whole body felt as if enveloped in cold, damp cloths, and he became quite prostrate.

At a little after 8 o'clock his pulse was 40 and very weak. The flatulence continued, till a quarter past eight, when he again vomited slightly. The cold, clammy sweat continued, and the whole surface of the body was numb. At 8½ his pulse was 56. After vomiting his face was quite pale, but there was no dilatation of the pupil. He felt prostrated during the evening, but the next day was quite well.

\* American Journal of the Med. Sciences, Oct., 1858.

† Idem, Oct., 1861, p. 400.

‡ Idem, p. 403.

\* Am. Jour. of the Med. Sciences, Oct., 1861, p. 406.

† Italics in the original.

‡ January, 1864.



This is one of the most valuable experiments recorded, and, so far as it goes, agrees with what has been found in animals.

Dr. Watson administered the tincture in three cases. In one the patient was suffering from phthisis with a pulse of 120. At quarter to 9 o'clock, grt. viij. of the tincture were given, which dose was repeated in one half an hour, as no effect had been produced upon the pulse. In half an hour more the pulse was still the same, but in a few minutes she was found retching violently and vomiting. Her pain was intense and her prostration excessive. She continued vomiting at short intervals till within a few minutes of 11 o'clock. A cold, clammy sweat broke out over her whole body, but especially upon the face. At 10½ the vomiting was diminishing in severity (brandy had been given), but the prostration became more marked. Just before the vomiting commenced her pulse was at 120, but at 10½ it had sunk below 60, and was very weak. At a quarter before eleven it was 60, and at 11 o'clock it was 80 after taking wine and morphia. She was very much frightened on account of a *dead* feeling she experienced, especially in her limbs, and to a certain extent over her whole body. The following table shows the rapidity of her pulse:

9.45, P.M.,	120	12, midnight,	76
10.30 " "	below 60	12.15, A.M.,	72
10.45 " "	60	12.30 " "	72
11 " "	80	12.45 " "	80
11.15 " "	72	1 " "	80
11.30 " "	72	9 " "	120
11.45 " "	80		

In this case, the symptoms were essentially the same as in the previous experiment.

In the second case the tincture was given to a young man, aged 16 years, who had undergone amputation of the thigh on account of a tumor.

At 7 o'clock, 4 minims were given.

At 7.15, he had nausea.

At 7.30, he vomited.

His pulse was as follows:—

At 7, P.M.,	152.
7.15 " "	152.
7.30 " "	136.
7.45 " "	136.
8 to 9 " "	132.
9 " "	4 minims more were taken.
9.15 " "	132; nausea increased.
9.30 " "	124.
9.45 " "	124; vomiting, with great weakness.
10 " "	124; vomiting.

The next day, 11, A.M., 150.

The following day, 10, A.M., 132. Tincture again taken in the dose of 4 minims.

10.15, A.M., 132; feels sick.

10.30 " " 124.

11.15 " " 124.

11.30, A.M., 120.

11.45 " " 126; 4 minims more. [iting.

12 " " 124; great nausea and occasional vom-

12.30, P.M., 124.

1 " " 128.

3 " " 132.

The next morning, 160.

In the third case, the tincture was given to a man, aged 52, who had a fracture of the thigh-bone. Six weeks after the accident his pulse was high, but the general health of the patient was good.

At 7.15, P.M., pulse 100; gave 4 minims.

7.30 " " 100.

8 " " 100; gave 4 minims.

8.15 " " 96; flatulence and nausea.

8.30 " " 92.

8.45 " " 88.

9 " " 100; patient retching.

9.15 " " 94; vomiting over, though great nausea.

9.30 " " 88.

9.45 " " 36; great nausea.

10 " " 86.

11, A.M., 92.

On the second day the medicine was again tried.

At 10, A.M., pulse 100; gave 4 minims.

10.30 " " 100.

11 " " 96; flatulence.

11.15 " " 96; sickness and flatulence.

11.30 " " 92; " "

11.45 " " 94; another 4 minims.

12, noon, " 94; flatulence.

12.30, P.M., pulse 94; great nausea.

1 " " 90; other 4 min.; great nausea.

1.30 " " 96.

2.15 " severe fit of vomiting, which lasted from 20 to 30 minutes.

He complained of a sinking at the heart, pain in the stomach and bowels, and, after the vomiting, of great depression, and of a *dead* feeling in the limbs. After vomiting, the pulse fell to 80, but at 3 o'clock, after taking stimulants, it was 92, and the next morning it was at 96.

In the *Medical Times and Gazette*\* is recorded by Dr. Edwards a case of accidental poisoning with veratrum viride.

A chemist took an over dose of the tinct. ver. vir. for the purpose of testing its effects. He took ʒj., equal to about 12 grs. of the powder. He was found sitting in the water-closet, vomiting into the pan. His features were sunken, skin cool and covered with a profuse clammy sweat; his pulse was quite imperceptible. He complained of intense pain in the epigastrium. The vomitus, at first, appeared to consist of food and contents of stomach, afterwards of a glairy mucus. He received immediately ʒjss. of pure brandy, which checked the vomiting. He was removed into a room, and on to a couch in front of the fire. The surface of the body was still very cold, especially of the extremities. The clammy sweat continued, but the pulse could be indistinctly felt, beating feebly and with irregularity,

\* Jan. 3d, 1863.

about 44 a minute. Under the use of brandy warmth gradually returned to the surface, and the pulse became better in volume and power. He fell asleep, and awoke better. The next day he was well. There was no diarrhoea. He stated afterwards, that before and during the vomiting he had a sense of constriction in the throat, and excessive pain. His mind was calm, though consciousness was clouded for a time. Immense circles of green color were seen around a candle flame, which turned to red on closing the eyes. There was a tendency to cramps in his legs when they were touched.

M. Oulmont has published\* in a memoir, read before the Académie de Médecine de Paris, the results of his experiments with this drug. He sums up the results of his experiments (which are not related) with *veratrum viride*, as follows:—

"1st. It quickly causes nausea, vomiting and diarrhoea, which two former may last fifteen to twenty hours.

"2d. The respiration is greatly modified, becoming irregular; sometimes, very rapid, sometimes so retarded, that there may be but one or two respiratory movements during a minute; sometimes in frogs it is completely suspended.

"3d. The circulation is very rapidly diminished in frequency; the pulse, at the end of a quarter or half of an hour, as much as 20, 40, or 60 pulsations a minute. In man not in a febrile state, *veratria* (in the dose of 1 to 3 centigrammes) causes the pulse to fall thirty to forty beats.

"4th. The temperature follows a descending scale a little less marked; at the end of half an hour to two hours only, it descends 2°, 3° or even 5° (C.), and may remain there twenty-four hours without death resulting.

"5th. The debilitating action of *veratrum viride* is manifested from the beginning. Feebleness and prostration continually increase, and when they have attained the highest point the animal dies.

"6th. There never results contraction, muscular rigidity or tetanic convulsions.

"7th. The poisonous dose of *veratrum viride* for frogs is 20 drops of the tincture, for rabbits 60 to 80, and for dogs 120 to 150."

He concludes from comparative experiments that *veratrum album* is much more unequal in its effects, and more severe in its action. He thinks that the action of *veratrum viride* does not depend on the alkaloid *veratria*†, as the latter causes muscular contractions and spasms.

M. Limon\* found that the tincture of *veratrum viride* causes diminished frequency in the pulse and reduction of temperature. The pulse decreased from 112 to 54, and the temperature from 39 to 37 (C.). He noticed, too, that the sphygmograph showed an increased arterial tension, when the pulse is reduced in frequency. Its effects passed off rapidly, and there was no cumulative action. He, also, mentioned the vomiting.

Two cases, well reported and observed by MM. Taber et H. Hirtz, *internes aux Hôpitaux de Strasbourg*, were reported by M. Oulmont to the Society of Therapeutics.

The first was a case of pneumonia in a woman, 30 years of age, mother of three children, pregnant with a fourth. She entered the hospital on the evening of the 9th of March, on account of pneumonia of the left lung. The temperature was 39° (C.), pulse 112.

March 10th.—Temp. 38.8° (C.); pulse 108; respiration 80. Antimony and bleeding had been her treatment. In the evening the temperature was 39.2° (C.); the pulse 108; respiration 48.

March 11th.—Asphyxia seemed imminent. Temperature 39.7° (C.); pulse 112; respiration 76.

*Veratrum viride* was now ordered in granules containing 1 centigramme of extract. This was first given at 9½ o'clock.

Hour.	Dose.	Temp.	P.	R.	Remarks.
9.30	1st gran.	39.7°	116	76	
10.30	2d "	39.4	108	76	
12	3d "	38.7	98	68	Vomiting.
1.30		38.1	68	42	
3		37.8	64	44	Temp. of vag. 38.6°.
4.30		36.8	64	38	

The vomiting which arose after the third granule caused considerable distress, which was of short duration. During the evening the symptoms recurred in severity.

March 12th, A.M.—Temperature was 39.2°; pulse 104; respiration 80. *Veratrum viride* was again given.

Hour.	Dose.	Temp.	Pulse.	Resp.	Remarks.
10	1st gran.	38.8°	108	74	
11	2d "	38.3	100	50	
12	3d "	37.4	82	50	Vomiting.
1.30		38.3	60	30	
2.30		38.6	60	40	
3.30		37.7	64	40	
4.30		37.5	72	40	
5.30		37	68	28	
6.30		37.5	80	40	
7.30		37.5	80	36	
8.30		37.2	80	36	
9.30		37.9	80	36	
10.30		38.1	80	36	
11.30		36.6	96	40	

\* Bull. Gén. de Thérap., 1868, tome lxxiv. p. 145.

† According to our experiments, this distinction cannot be maintained.

\* De l'action du Ver. Vir., Gaz. Méd. de Strasbourg, in Bull. Gén. de Thérap., Jan. 30th, 1869.

March 13th.—Temperature 38.7°; pulse 96; resp. 32. She gradually recovered.

The second case is one of generalized bronchitis in a man 37-years old.

We do not think it worth while to transcribe this case, which agrees in every essential with the one detailed above.

#### SUMMARY.

The conclusions in regard to the physiological action of veratrum viride, and the alkaloid, veratria, which can be drawn from these experiments and cases recorded by others, confirm those that we have been induced to draw from our own experiments. We need only mention, here, the influence which is exerted upon the nervous system. In some respects resembling the action of woorara, it differs from that poison in less energetic action, in attacking the sensory fibres as well as the motor, and in diminishing the frequency of the cardiac pulsations. We have not performed any experiments to show whether the periphery or centre of the nervous system is affected, or whether the whole nervous tract is influenced.

The influence over the cardiac pulsation is, however, such that we are disposed to suspect that the nerves supplying that viscus are influenced at their central origin. The reduction in temperature indicates that the metamorphosis of tissue by which the temperature is sustained is interfered with; but this is most marked in cases of abnormal excess of temperature. The reduction of temperature would, also, indicate an influence over the vaso-motor system; the paleness of face, the dilated pupils, which have been sometimes noticed, and the increase of the arterial tension, observed by Limon, point to the same conclusion. If this be so, the weakness and paralysis may be due to an excessive contraction of the arterioles. Our experiments do not allow us to decide whether it is the spinal cord which is affected by this contraction, or whether it is the nervous trunks, or the terminal fibres of the nerves, or the nervous plates, which form the connection between the nerve and the muscle; but inasmuch as the respiratory and cardiac movements, the arterial contractility, the motor and sensory powers, and the secretory functions are all more or less affected, it seems more reasonable to refer the disturbance to the spinal axis, as that part of the nervous system through which the influence is exerted, and from which all the above-mentioned results are produced.

The nausea and vomiting, the sensation

of tingling, the prickling in the fingers and toes, and other abnormal sensations in the throat and elsewhere, which seemed to be present even when the drug was administered hypodermically, might be caused by the direct contact of the drug upon these parts as it circulates through them in the blood. A local application produces a numbness and deadens the pain of neuralgia. The deadness and diminished sensibility may, likewise, be due to the local contact of the drug; or, both these effects, viz., the loss of sensitiveness and the abnormal sensation, may be due to its influence over the central nervous system.

In one case only, that of accidental poisoning, does there seem to be a cloud over the intelligence.

These are the conclusions which follow from what has been recorded by others, and it will be well to bear them in mind in considering our experiments, which will now be given.

It is proposed to show, by the following experiments, the symptoms produced in various animals by veratria, and at first from a poisonous dose.

EXP. I.—Green-colored frog. Before the administration of the poison, the thorax is opened, and the number and force of the cardiac pulsations noticed:—Respiration 10; pulsations 32. Veratria placed upon the web of the frog's foot.

Hour.	Respiration.	Pulsation.	Remarks.
0.21	feeble.		
0.31	very feeble.		
0.36			Veratria applied to heart itself.
0.41	nearly ceased.	very feeble. 28	heart pale. tetanic spasms; right lung forced out of thoracic opening and ruptured.
0.58	ceased.	the same. very feeble.	tetanic spasms every few minutes.
2.21		still goes on.	
2.31			obliged to leave; muscular fibres contracto-stimulation.

*Post Mortem*, twenty-one hours after. Continued rigor mortis; muscles, heart and liver all very pale. No muscular contractility to stimulation or by electricity. Lung tissue contains air. No transverse striae visible by the microscope in cardiac muscular fibres, which seem to be replaced with granular spots.

In this experiment it may be noticed that veratria is not very readily absorbed by the skin of a frog; and, also, that after its topi-

cal application to the cardiac muscles, it does not cause paralysis of the heart's action, though it does produce cessation of the respiratory function. It produces various muscular spasms, to which the frog, of all animals, is the most liable, and which may, after all, be voluntary movements.

Exp. II.—Russet-colored frog. As it is stated by some observers, that phenomena produced in the green-frog and in the russet-frog are dissimilar, the effects are reproduced upon the latter that a comparison may be drawn. The *tincture of veratrum viride* was used in this case.

*Tinctura veratri viridis* gtt. q. s. Subcutaneous injection to leg.

Hour.		Pulse.	Resp.	Remarks
0.07	Thorax opened.	22	very feeble	spasms.
0.07		weaker.		
0.13		22		
0.18		do.		
0.35		18		
0.40		10, irreg.		
0.53		12		
1.00		10		
1.12		12		
1.22		12	ceased.	

*Post-mortem* examination showed diminished response to electrical stimulation in the leg to which the injection was administered; striated muscular fibres of this leg somewhat disintegrated, though the striæ can be distinguished. This is specially true of the cardiac muscles. Rigor mortis very marked.

This last experiment agrees in general with the previous one, but the symptoms and other effects are more intense, probably, because the dose of *veratria* was larger.

Exp. III.—Frog (green). *Tinctura veratri viridis* gtt. xii. placed under skin of a frog's leg. When it touched the flesh the frog jumped and kicked.

1'. Respiration spasmodic.

5'. " irregular and jerking; violent struggling.

11'. Respiration slower and jerking; violent struggling.

16'. Respiration feeble.

17'. Convulsive movements; bulging of sides, reminding us of the efforts at vomiting by a cat under similar circumstances.

24'30". Same effects; resp. ceased for a short time, and was then resumed.

1.8'. Muscular quiverings in posterior extremities.

1.45'. All phenomena of life had ceased, including those of reflex action.

*Post mortem*.—The muscles near to the place where the *veratria* had been applied were, in some places, covered with granu-

lar degenerations (as it appeared under the microscope), and, in others, extremely fine transverse striæ were arranged very near each other; the corresponding muscles of the opposite leg had nothing of this peculiarity. The cardiac muscles were easily separated into fibrillæ, some showing a coarse striation, others the same granular appearance above referred to. The hearts of each of the two frogs (Exp. II. and III.) were pale and muscles somewhat contracted, each animal having an abundance of fluid blood in its body.

These peculiarities were afterwards explained by a more careful examination, made with the use of alcohol and ether, which cleared up the field of observation, leaving the striæ more distinctly marked, though the fibrillæ were a good deal disintegrated and broken up. We were led to suppose that these dubious effects were due to mechanical deposition of the drug, as both the solution of *veratria* and the *tincture of veratrum viride* under the microscope had these same spots, and muscles soaked in either of the above were covered with these same globules.

This last experiment shows, in a general way, how the respiratory movements in a frog are modified, and that death can be induced by a dose of 12 drops; also that the *post-mortem* changes reveal little to show by what cause the vital functions are interrupted. It will be interesting to compare these first three experiments, taken from a number made upon frogs, with

Exp. IV.—Upon a cat.

A small amount of *veratria* (by estimation 3 to 5 centigrammes) on the point of a scalpel was inserted beneath the skin of the back, just over the upper lumbar vertebra. The cat immediately licked the wound.

5'. Champing of jaws and salivation; eyes closed; sneezing and retching; no loss of power over limbs; continued twitching of tail, occasionally crying; head held up with her nose in the air.

35'. Another dose (of equal amount) is administered in the same manner. Seems to cause much pain, from the crying induced. Apparent loss of muscular power in posterior extremities; great uneasiness and distress.

40'. Has a dejection; after which, seems disinclined to move.

1.9'. Eyes shut; when opened, pupils appear round and bright.

1.45'. Another defecation.

2.0'. Retching with cries, followed immediately by others, which were continued with much violence.

2.5'. Another more violent attack of retching, the cat dragging her face along the floor for six inches.

2.15'. Vomits a small portion of liquid food. Some loss of muscular power in posterior extremities.

2.20'. More veratrum administered, followed by continuous moaning; violent spasms, pawing at mouth, loss of muscular control; respiration very rapid; violent efforts at vomiting, drawing her up and off her feet.

2.35'. Convulsions and vomiting; respiration diaphragmatic. No loss of sensation.

2.55'. Ejection of urine followed by tetanic spasms and muscular twitchings.

2.55'. No respiration, no cardiac pulsation—death.

*Post-mortem* examination. Heart normal—lungs congested, ecchymosed and emphysematous, the lower lobes covered with white spots. Stomach rather pale; liver and intestines show no peculiarities; bladder empty; muscles of heart showed broken-up fibrillæ with the striæ somewhat irregular. In a muscle from the thigh the striæ were distinct.

[To be continued.]

## DISLOCATION OF THE ELBOW; A NEW METHOD OF REDUCTION.

By THOMAS WATERMAN, M.D., Boston.

FINDING no record in the surgical text-books of the method described below, I have thought the following case and comments worthy of publication.

On the 9th of May last, I was called to visit Mrs. L., æt. 30. She stated that, when near the bottom of a flight of stairs, she had tripped and fallen down the last three steps, striking with the whole weight of the body on her extended hand. As the accident had happened but half an hour previously, there was no swelling to mask the lesion. The left elbow was flexed at a right angle, and all motions were attended with great pain. After etherization, the ulna was found to be dislocated directly backwards at the elbow, as shown by the unusual prominence of the olecranon, depressions on either side of the triceps tendon, and resistance to complete extension of the forearm, which was twisted and pronated. The head of the radius rotated in its normal position, and no other lesion—neither dislocation nor fracture—could be detected.

Assuming that the patient's statement

was correct, it seems strange, in view of the intimate connection of the carpal bones with the lower extremity of the radius, that Colles's fracture of that bone did not occur; or, failing this, that the head of the radius was not forced out of place, either alone or in addition to the dislocation of the ulna.

Faithful trials of Sir Astley Cooper's method of bending the arm over the knee, and Mr. Skey's method of extending the forearm directly downwards in a line with the upper arm, failed to produce any effect.

I then succeeded in reducing the dislocation by bending the forearm backwards beyond a straight line, when, without any extension downwards, the ulna returned to its normal position with a slight shock. An internal angular splint was applied, and evaporating lotions recommended. In eight days the splint was removed, the patient allowed to carry the arm in a sling and to execute slight motions in the joint daily.

The *modus operandi* of this method is as follows, viz.:—when the ulna is dislocated backwards at the elbow without fracture of the coronoid process, the latter occupies the olecranon depression of the lower end of the humerus, and often requires considerable force to remove it from its abnormal position. By the method above described, the forearm is used as a lever, with the power (hand of the surgeon) at one end, the fulcrum (olecranon) at the other end, and the weight to be moved (coronoid process) between. As the forearm is extended backwards beyond a straight line, the olecranon impinges against the lower end of the humerus and becomes a fixed point or fulcrum; by continuing the forced extension, the coronoid process is lifted out of the olecranon depression of the humerus, and, when this is accomplished, the tonic contraction of the brachialis anticus muscle restores the ulna to its natural place.

It will be seen that this method of reduction is exactly the reverse of the process by which the bone becomes dislocated, although it returns by the same path by which it escaped; these two facts, it seems to me, should be borne in mind in the reduction of all dislocations, and additional proof of this statement may be derived from a study of Prof. H. J. Bigelow's system of reducing dislocations of the hip by manipulation, and Dr. Crosby's method of reducing dislocations of the thumb.

The method is capable of the most decisive demonstration with macerated speci-

mens of the ulna and humerus, and might be employed in dislocations of both radius and ulna backwards. It would be especially efficient in the reduction of old dislocations after the adhesions have been thoroughly broken up.

Since writing the above, I have noticed in a late number of this JOURNAL the account of a case, copied from the London *Medical Times and Gazette* for July 17th, 1869, p. 79, in which essentially the same method, *i. e.* excessive extension, was successfully applied to the reduction of a vertical dislocation of the patella.

#### DISLOCATION OF THE TRAPEZOID.

By GEO. W. GAY, M.D., Surgeon to Out-patients, City Hospital.

M. R. A. C., æt. 25, while fooling with some of his companions, July 16th, 1869, struck one of them upon the shoulder blade. The blow was struck with the right hand, the arm being nearly straight, and the force coming on the knuckles of thumb and first finger. He felt something suddenly give way in the wrist, and on examination found a small bunch, which was not there previously. Not being able to work, he applied to Dr. Martin, of Roxbury, who recognizing the injury and knowing it to be a surgical curiosity, sent him to the City Hospital.

Sixteen hours after the accident, he was etherized and a very careful examination made alongside the arm of an articulated skeleton. There was almost no swelling, and it was the opinion of the gentlemen who saw the case, that the diagnosis was as correct as it could possibly be, without a dissection.

At the base of the metacarpal bone of the right index finger was a sharp, hard, slightly movable bunch, raised about a quarter of an inch and tender on pressure. It could not be depressed or made to disappear with the hand in any position and the patient fully etherized. There was no crepitus, and the metacarpal bones of both hands were of the same length; the other bones of the wrist were in their place. Both wrists were perfectly sound before the accident, and had never been injured.

By means of an anterior tinsplint and adhesive straps the hand was kept extended on the forearm at an angle of forty-five degrees, for a fortnight, with no improvement to the deformity. Motion of the wrist good, as it always had been since the accident, but the motion caused less pain than at first. Ordered to go to work and report any further trouble.

Sept. 9th.—Right wrist nearly as good as left. Slight pain on extending thumb and index finger; deformity the same as at first, except the point is not quite as sharp, and there is a little induration around the bone. This dislocation is so rare that the common text-books on surgery say nothing about it. I do not know whether there are any cases on record.

Boston, Sept. 10, 1869.

#### Bibliographical Notices.

*Archives of Ophthalmology and Otology, edited and published simultaneously in English and German.* By Prof. H. Knapp, M.D., in New York, and Prof. S. Moos, M.D., in Heidelberg. Vol. I., No. 1. New York: Wm. Wood & Co.; Carlsruhe: Chr. Fr. Mullersche Hafbuchhandlung. 1869.

"Our eyes see the dispersion of the mists which for centuries have darkened the ken of the best investigators; and, thanks to the timely knowledge which is now possible, the domain of therapeutics has been extended over a previously undiscovered field, rich fruits from which have within so few years crowned our labors. But how much toil and time are here required for observation, comparison and research. How many sources of error are to be avoided in this, as in every other new method of investigation. What a multitude of data from pathological anatomy and microscopy must be intermingled with clinical observation to teach the true significance of the observed phenomena, and a right appreciation of their development. Persevering and united effort are here essential."

Thus, in 1854, wrote von Graefe in his preface to the first volume of the *Archives of Ophthalmology*, a work then commenced as an experiment, but which, continued uninterruptedly down to the present day, has embraced in its issues the great discoveries, and numbered among its contributors the famous names which have given ophthalmology its present high position in the field of medical science, and entitled the last fifteen years to rank as its golden age.

"We should be bold indeed," says Dr. Knapp, in his modest preface to the present work, "if we were to expect from the next two decades so many brilliant discoveries as the last two have given to the scientific world. Nevertheless, research in ophthalmic, as well as in aural surgery, is still

necessary, productive and full of promise. A great many questions yet remain unanswered; many morbid and physiological conditions have to be elucidated; and most, we might say all, the results of modern science in these two specialties are yet of so recent a date, that it would be difficult to denote any one point which might not profitably be subjected to renewed searching scrutiny."

No journal of either Ophthalmology or Otology exists at present in this country. The *Archives*, however, need no such apology for seeing the light. The names at their head, the materials with which this first issue is filled, and the tone that pervades its contents leave no doubt as to the position they are destined to take in medical literature, and the justice of their claim to a prompt and generous support.

*En passant* we might express a wish that a more original title had been chosen, fearing as we do that some confusion will arise between the foreign issue of this work, and the publications now directed by von Graefe and von Trötsch. Nor can we wholly follow Dr. Knapp in his views of the necessary connection of diseases of the eye and ear, or share his opinion that "henceforth a conscientious student will hardly be satisfied with limiting his knowledge to one single organ, but will, on the contrary, by reason of the many analogies between them, be led from ophthalmology to otology, or *vice versa*," &c. Indeed, in the next paragraph he takes a more practical, if less exalted view of the matter. " \* \* \* It will be proper to remember that—the number of oculists having so much increased during the last decade, it will not be wise for the younger generation to rely with too much confidence on ophthalmic surgery exclusively."

A detailed analysis of the materials contained in this number would require more space than the columns of the Journal can well afford. The table of contents contains the titles of twenty-seven articles, furnished by an illustrious list of native and foreign contributors, their names alone being a sufficient guarantee of the value of their productions. Seventeen are to be classed in the ophthalmic and ten in the aural department. Among the American writers are Pope of New Orleans, Williams of Cincinnati, Williams of Boston, Noyes and Roosa of New York; while from across the Atlantic come articles from the pens of Hinton, Becker, Liebreich and Wecker. The editors, Dr. Knapp and Professor Moos, furnish much valuable material.

VOL. IV.—Nos. 12-13A

The chromo-lithographic plates and exquisite engravings, a number of which accompany the present volume, were executed at Carlsruhe, and naturally throw into the shade all such appendages to medical works brought out in this country.

Without desiring to be captious we cannot refrain from calling attention to one or two drawbacks to the completeness of the present volume. Typographical errors are alarmingly frequent, the services of a proof-reader having been apparently even more sparingly employed than is usually the case with Graefe's *Archiv*, which we had always, up to the present time, supposed to contain more misprints than any other scientific book of its size. Some of the translations from the German are also stiff, awkward, and involved to a degree, sacrificing both perspicuity and conciseness to a blind adherence to the original idiom or order. It is with dismay that the reader finds himself confronted with such a clause as the following:—"Notwithstanding such positive and so many times publicly demonstrated results." But even the author of the Portuguese Guide would be out of his depth in what ensues. "It is highly striking that not even with higher current intensities, as it is possible also in the motor nerves to obtain the closing sensation with An, and the opening sensation with Ka."

We wish that the *mariage de convenance* between ophthalmology and otology were as likely to be dissolved, as such inadvertences are sure to be repaired. But, taken as it is, the work Dr. Knapp has undertaken marks an era in the history of American medicine, and gives new dignity to the course and efforts of the special practitioner. No higher praise can be bestowed upon it than the statement that it bids fair to be worthy its founder's reputation.

H. D.

[MR. EDITOR,—I send you a few extracts from the notice of a new German work on Transitory Disorders of Consciousness, taken from the *Annales Medico-Psychologique* for July, 1869. From the space in your columns lately devoted to the discussion of transitory mania, I have thought your readers might be interested in knowing where to find the latest ideas on this subject.

T. W. F.]

*Die Transitorischen Störungen des Selbstbewusstseins: Contributions to the History of Transitory Mania, from a Clinical and Medico-Legal Point of View, for Physi-*

*cians, Judges and Lawyers.* By DR. DE KRAFFT-EBING, Euke. Erlangen. 1868.

UNDER this title the author presents a succinct account of all the psychological states in which, from one cause and another, a man losing momentarily the knowledge of his acts and of his own existence, enjoys no longer a free agency, and is not responsible for reprehensible acts which he may then commit. These acts, almost always of extreme violence, are the more difficult to estimate, from the fact that the state of alienation in which they are committed has usually completely passed when the physician is called to form his opinion. This, then, is one of those chapters in psychology to which physicians and jurists cannot give too much attention, and the work of Dr. Krafft-Ebing will be in all cases a valuable guide.

Besides his personal experience, the author has conscientiously studied the whole literature which relates to this interesting subject, and the works which he cites at the head of each chapter will greatly facilitate research.

Dr. Krafft distinguishes seven different groups of conditions, under any of which transitory mania may occur:—

- (1.) The state of dreaming.
- (2.) Different kinds of intoxication.
- (3.) The delirium of febrile maladies.
- (4.) The transformation of neuroses (such as epilepsy, hysteria, neuralgia).
- (5.) The transitory psychoses. First.

*Transitory mania*, properly so called, which is not always easy to distinguish from other analogous states, and above all from epileptic mania, or neuralgic dysthymia. This form consists in a primary aberration of the intellectual faculties, which may last from twenty minutes to six hours; it appears suddenly, without warning, differing in this from the preceding states, in individuals (generally men) perfectly well behaved before and after the access. The loss of consciousness, and afterwards of recollection, are complete. The access has the character of fury, or acute delirium, with hallucinations and illusions, and terminates in a profound sleep. The access is generally unique, and recurrences very rare. This form of the affection is probably due to congestion of the nervous centres. Second. *Raptus melancholicus*. This condition has, without doubt, always a foundation in some neurosis—some psychosomatic affection, which is the source of that distress which irresistibly drives the individual to commit acts of violence in order to relieve it. Usually, the act com-

mitted, he is calm and satisfied, until consciousness brings the recollection of it.

(6.) Pathological passion and delirium of the senses. Every man has passions which he can conquer and control if in his normal psychological state; but there exists an unfortunate class whose physical and mental organization is defective, either temporarily or permanently, and with whom violent passions or emotions produce a reaction of which they are not masters, and which too often brings them to the bar of justice. They are not responsible in the same degree as those of firmer moral and physical fibre. The paroxysm of passion may go on to complete delirium and produce a true access of transitory mania, during which the senses may be led into error, and the perception of exterior objects distorted. The limit of responsibility is here difficult to trace, and it is necessary carefully to individualize.

(7.) Transitory intellectual troubles during and immediately after childbirth.

All these conditions of transitory disorder may prove very difficult to estimate when the question of responsibility is raised, since the direct examination of the accused affords only negative results. His physical, moral and intellectual antecedents, both personal and hereditary, and his condition preceding the act, in reference to fatigue, emotions, nervous accidents, &c., may furnish valuable indications. Next, one should study the character of the act itself, which is always violent, sudden, without plausible motive or conscious aim, absurd, illogical, the patient breaking, killing, destroying, indiscriminately all which comes to hand, and often to the detriment of his own best interests or of his dearest affections. There is no concealment and no calculation. It is a blind, brutal, irresistible force which acts in the individual. He acts openly and does not secrete himself. He acts often with noise and violence. Nothing can withhold him in his blind fury.

Somnambulism furnishes an exception to this rule, not presenting all these characters, the acts often appearing the result of forethought and calculation. The manner of the accused will, however, generally be a guide to his mental state. He has usually no knowledge of what has passed, and does not understand why he should be accused; he is calm and tranquil, having no fear of consequences for the same reason.

In *raptus melancholicus*, it may happen that the patient has a knowledge and recollection of what has passed, for when the



access is over he often goes to denounce himself to justice. This form of transitory mania is also distinguished from others by the fact that the individual seems to calculate his acts, or at least to be more or less conscious of them at the time of commission. Their irresistible character excludes responsibility nevertheless.

## Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 14, 1869.

### ABUSE OF INSANE ASYLUMS. IN WHICH SENSE SHOULD THE PHRASE BE TAKEN?

OUR attention has been called to the following article in the *Boston Daily Advertiser*, of Sept. 18th. A similar piece appeared in the *Boston Post* of the same date:—

Mr. H. Frothingham, a New York merchant, was released from the Bloomingdale Insane Asylum a few days ago on a writ of *habeas corpus*. He had been an inmate of the institution for more than three months, during the whole of which time he alleges that he was of perfectly sound mind. "I can only assert," he says, in a letter published in the *New York Times* of yesterday, "that I am sane now, was sane at the time I was taken there, and was of sound mind and memory during the whole time I remained there." The story of his incarceration is briefly this:—On the morning of the 8th of June last he returned to his house after a night's absence, and found there two strange men. He conversed with them a short time, and at their request left the house in their company. He was at once taken by them to a station house, and shortly afterwards he was removed to the police court room at the City Hall in Brooklyn. Here he saw his brother and one gentleman with whom he had a slight acquaintance—all the rest present were strangers. No testimony was taken by the judge, and an examination was refused; but when Mr. Frothingham said he would like to consult Mr. Evarts, he was removed from the court room and placed in a carriage, in which were seated his brother and the two strangers of the morning, who stated that they were going to Mr. Evarts's residence. Mr. Frothingham was driven, however, directly to the Bloomingdale Asylum, where he was forced to remain for the period above-named. The only reason he can assign for

this treatment is found in a conversation which he had on the day previous to his imprisonment with a son of a cousin, in the course of which he informed this relative of "a matter, of which he was unaware, in regard to certain relatives who resided in Massachusetts." What this matter was he declines to say, remarking that its nature will be disclosed by the legal proceedings which he is about to institute. The extraordinary features of this case have attracted a good deal of attention. *It clearly illustrates the facility with which designing persons may secure the confinement in insane asylums of those they desire to victimize,\** and it is to be hoped that it will reveal the necessity for such legislation as will prevent the possibility of such occurrences in the community.

A nice sensation story, with a sounding "snapper" at the end of it! It would seem almost a pity to say anything to mar the effect. But duty is inexorable. The two secular Journals aforesaid, leading papers in their respective parties, the one proverbial for its "respectability," the other, the embodiment—outside of its political harness—of courtesy and good-fellowship, might have been, we suspect, more discriminating, if they had been less anxious, perhaps, to point a moral and adorn a tale in a pungent paragraph. They might possibly have considered that the presumption was in favor of the wisdom of the professional parties who certified the unfortunate gentleman to the Bloomingdale Asylum, and of those who retained him there, unless that presumption was overthrown by competent evidence. It was not set aside, we take it, by the issue of the *habeas corpus* requiring them to show cause, and so forth, and would not be overruled except by further legal proceedings, which at our last advices had not been instituted. It certainly was not weakened by the fact that the Insane Asylums are generally well filled, and that their superintendents are discussing the expediency of billeting some of the harmless inmates of these institutions in private houses. Our eminent cotemporaries might also, if they had duly reflected on what they were doing, have refrained from passing summary judgment, before ascertaining the correctness of the facts

\* The italics are ours.

alleged, and the antecedents of the person principally concerned in the transaction animadverted upon.

Not long previously to his confinement in the Bloomingdale Asylum, Mr. Frothingham was in Boston, and exhibited such symptoms that he was sent to the McLean Asylum in Somerville, at the instance of his brother, and of a mutual friend—a very respectable merchant of this city. That he was insane at that time, we are able to testify personally, as we were one of the two physicians who, in accordance with the law, certified him over to the Hospital. Before our interview with him on that occasion, we had no knowledge of any of the parties to the occurrence, except Dr. W. O. Johnson, who came for us, in default of finding Dr. Jacob Bigelow, for whom he first went. Thus we were free from all bias in the matter. And, speaking as a physician, we must say that we should think it impossible that any tyro in medicine could have failed to draw from that interview the professional conclusion at which we arrived, and on which we acted, viz.:—that the patient was then of unsound mind and requiring medical treatment. Not a doubt of his insanity was entertained by Dr. Tyler, who received him into the McLean Asylum, and who retained him there until he was withdrawn at the desire of his mother and sister; the consent of the brother, upon whose request he was admitted, having been obtained. Let it be understood that the patient was not discharged, as cured, but merely surrendered to the authority of the relatives who demanded him; and no complaint, that we are aware of, has been made of the action of any one concerned in this chapter of his history.

We are informed that the patient's subsequent career was eccentric, and that his mother had him placed in the Bloomingdale Asylum; since his removal from which he and the newspapers seem to have had matters pretty much their own way. Instead of his being a wealthy merchant, as one of the papers has it, his nearest relative, we are told, had mortgaged her house to set him up in business. Thus his heirs would seem to have had no pecuniary motive for confining him.

Of course we cannot at this distance of time and space affirm the present insanity of the gentleman in question; nor are we authorized on the ground of our professional opinion that he was deranged when we saw him in Boston, to assume that his mind was disordered when afterwards he was sent to Bloomingdale. But, doubtless, if our editorial friends had known the circumstances we have recounted, they would not have entertained their readers with the story in question, as furnishing a test case which "clearly illustrates the facility with which designing persons may secure the confinement in insane asylums of those they desire to victimize." It may be claimed that a reporter has no time to investigate such facts in every case he puts into print. Very well! Then it is equally true that the same reporter has not the time for a fair and full statement of such matters at all, and should therefore remember that there are junctures when "silence is golden." In such cases he should confine himself to the bare item of the confinement and removal of the so-called insane, with perhaps a mere allusion to the allegation that the detention was improper, as being an assertion "important if true."

We have occupied thus much space in dealing with this matter, because it seems to be the fashion of the day to find fault with insane asylums, and to spread broadcast everything which may make against them, notwithstanding that they were never better managed than they are now. The tendency of all this is to prejudice people against those institutions and their management; and thus to a certain extent to deprive the public of a means of cure—of the means of cure—for one of the worst maladies afflicting the human race. Nay, more! Just as sure as the planting of the seed leads to the harvest, just so sure will the course we deprecate *multiply tragedies like that which occurred at Longwood last year*; or like that recently cited by the *New York Medical Record*.

It occurs to us that this fashion of carping at the public benefactors in question, may have sprung from the accumulated complaints of lunatics, whose habit of decrying their keepers is a part of their sad

disorder. It is just possible, however, that it may also be traced to a less worthy course. It may be the reverberation of the "sensation" produced by a certain English work of fiction, the plot of which turns upon the interest sought and produced among sentimental readers, by the adventures and sufferings of the hero in a private mad-house. This fabrication of the author's fertile brain makes the matron procure the release of an inmate—an imbecile—in order that he may "go to house-keeping" with her according to law. A highly wrought story may be absurd in its contrivance, but pernicious in its effects.

At all events, if the present tendency goes on unchecked, and the practice becomes widely adopted of private individuals constituting themselves the keepers of the insane, the butchery of unoffending wives, husbands, parents, children or neighbors, by lunatics, will be more common than ever. Singularly enough, this popular error is coupled with a converse form of pseudo-philanthropy—that of shielding the wilful murderer from punishment under the pretext of insanity.

#### NOTES FROM FRENCH JOURNALS.

*Flexion in Popliteal Aneurism.*—In a July number of the *Union Médicale* is a valuable analysis by M. Liégois, relative to *The Treatment of Popliteal Aneurism by Flexion of the Leg on the Thigh.*—M. Liégois claims that the French surgeon Lenoir first applied flexion in the treatment of popliteal aneurism. He employed semi-flexion only, and failed after a month's trial. Mannoir of Geneva obtained the first success. In 1863 Hart, an English surgeon, reported a series of 12 successes. M. Liégois's analysis is based upon a thesis of M. Stopin containing 49 cases, all borrowed from English surgery except 8.

These 49 cases are divided into two principal categories—the successful ones and the unsuccessful. The first series—the successful—are subdivided into three secondary categories:—1st. *Cases in which flexion alone was employed.* There were seven of these, in which the age of the subjects ranged from 30 to 40 years, with the exception of one of 60 years. The size of the

tumor was inconsiderable—generally from that of a walnut to that of an orange—though one was as large as the fist. In all but two, pulsation ceased during flexion; and in those two it was very feeble. All these seven got well without relapse, after flexion lasting from 3 to 18 days.

The second subdivision comprises *cases in which flexion was resorted to after the failure of certain other methods of treatment.* In those recoveries, four in number, the aneurisms varied in volume from that of an orange to that of a hen's egg.

Thirdly, we have *cases in which flexion was employed in concurrence with other measures.* In these, we are told, it is difficult to assign the share the flexion had in the successful results. In one the aneurism was of the size of the fist; in the others it was as large as a turkey or goose egg.

We have thus 26 cures in 49 cases.

The *failures* were 23 in number. In 3 of them the flexion was borne, but was ineffectual. In the remainder pain interrupted the continuance of the flexion, which latter, however, was generally forced and not gradual or intermittent. By way of sequence there was rupture of the sac seven times, and once inflammation of it. The most probable contra-indications of this method are, according to M. Stopin, the author of the thesis analyzed, severe pain produced by the flexion; a large sized aneurism; granulo-calcareous degeneration of the arterial system.

M. Liégois goes on to compare the value of flexion with digital compression, to the advantage of the latter. After he had read his paper before the *Société Impériale de Chirurgie*, a discussion ensued with regard to this comparison, in which M. Le Fort, M. Giraudeau and M. Trélat differed from some of the views of M. Liégois.

*Animal Vaccination.*—The *Gazette Hebdomadaire* of September 10th says it would seem idle to revert to the question of animal vaccination on the occasion of each session of the Academy. It awaits the replies to what has been advanced which will not be slow to appear, before estimating in their totality the results of the discussion, which has now been long pending. Hitherto nothing appears to the *Gazette* to have

essentially impaired the principal assertions of M. Depaul, as they now stand. It says, first, the increasing efficacy of re-vaccination; otherwise put, the increasing inefficacy [the diminishing efficacy] of vaccination has been denied by no one, but merely explained in different ways, and that not as the central point of debate: Secondly, the existence of vaccinal syphilis was contested, but [now] everybody admits it, though the degree of its frequency is a subject of discussion: Thirdly, animal vaccination was regarded at first as dangerous, then as a fallacy, and agreed upon as being at least as valuable as human vaccination. It remains to ascertain, we are told in conclusion, what consequences to draw from these facts in relation to the general practice of vaccination. That point awaits examination.

M. LATOUR ON ANIMAL VACCINATION AND VACCINAL SYPHILIS.—M. Latour, in the *Union Médicale*, after adverting to the isolated position in which this long debate has left M. Depaul, lays down the following propositions as the legitimate results that flow from it:—1. The degeneration of the Jennerian virus is far from being proved. 2. There does not exist a single authentic example of vaccinal syphilis, properly so called. 3. The excessively rare cases of syphilis inoculated by vaccination are explicable by conditions which completely exonerate the vaccine virus from all injurious mixture. 4. A large number of pretended examples of syphilis following vaccination justify the most serious doubts as to the accuracy of the diagnosis. 5. Animal vaccination, simply as another source of lymph, is deserving of encouragement, although it possesses no real or sensible advantage over vaccination from arm.—*London Med. Times and Gazette*.

M. RICORD ON VACCINAL SYPHILIS.—\* \*  
\* \* M. Ricord, however, cannot agree with M. Guérin that the diagnosis of the disease is very vague and uncertain, for in neither medicine nor surgery does he know any affection more easy of diagnosis in the immense majority of cases. He thinks that in some of the cases of vaccinal syphilis that have been published the diagnosis has been sufficiently exact to compel the admission of the possibility of its existence. In none of these cases, however, has he as yet ever

been able to discover the original *vaccino-syphilifer*.—*Ibid*.

DISPLACEMENT OF THE HEART IN PNEUMOTHORAX. *Mr. Editor*.—The following cases, to which I referred at the meeting of the Society for Medical Improvement, Sept. 27th, occurred at the Brompton Hospital for Consumption, and are reported by Dr. Douglas Powell. In the *Medical Times and Gazette* for January 30th, 1869, Dr. Powell called attention to the displacement of the heart in cases of pneumothorax, and showed that at first this change in position was due to the traction exercised by the healthy lung and not caused by pressure in the diseased pleura. The mediastinum is in reality poised by the contending elasticity of the two lungs; and so, when one lung is collapsed the other pulls the heart over to its own side. Dr. Powell has sent the following cases in support of his views.

W. C. B. FIFIELD.

Harrison Square, Sept. 28, 1869.

CASE 1.—Walter C., aged 21, admitted into Brompton Hospital, under care of Dr. Cotton, February 12th, 1869. Patient had a strong hereditary predisposition to phthisis, and suffered from an attack of pleurisy five years ago, but dated his present illness from a cold thirteen months before admission. Previous to his admission he had been staying at the Chelsea Home, and while there, on Jan. 10th, was seized with pain in the left side. He was seen on Jan. 12th by Mr. Charles Joubert, Resident Clinical Assistant at Brompton, who found the whole left side of the chest tympanitic on percussion, with distinct amphoric respiration most plainly audible below the clavicle. The hyper-resonance did not extend below the mid-axillary line vertically; there was dulness posteriorly, with scattered humid crepitation. The heart's impulse was seen and felt at the fifth right intercostal space within the nipple; the patient had remarked, at the time of his seizure, that the heart beat to the right of the sternum. Decubitus right; respiration 30 in the minute; pulse 100. There were signs of excavation and softening at the right apex.

Jan. 15th.—Better. No urgent symptoms of pneumothorax. On admission into the hospital, Feb. 12th, the hyper-resonance extended beyond the median line in front; the amphoric respiration was well marked in front and laterally to the base, and metallic echo and tinkle were audible. The deficient resonance, with moist sounds, was

still present posteriorly. The disease in the opposite lung had advanced. The heart's maximum impulse was to the right of the sternum. The apex, however, was ascertained by percussion and palpation to be at the ensiform cartilage. The respirations were 30; pulse 96. No urgent dyspnoea. The patient was weaker, and lingered on, gradually sinking from the progress of the general disease, without any material change in the physical signs. Died May 26th, 1869.

Autopsy, thirty hours after death. No difference noticeable in the relative size of the two sides of the chest. A trocar and cannula, connected by tubing with a water-pressure gauge, was inserted at the left fifth interspace to ascertain the air pressure. This was found to be nothing. A stilette was then thrust in at the fourth right interspace near the sternum, the trocar withdrawn, and the cartilages removed in the usual way, the heart being secured in position by the stilette. The exact position of the heart was as follows. The apex was behind the sternum and slightly to the left of the median line, *i. e.* in the vertical line of the left sterno-clavicular articulation and at the level of the fifth rib. The left border of the heart occupied the median line, with a slight inclination to the left; the right border was touched by a line let fall from the middle of the right clavicle. The left pleura contained a small quantity of purulent fluid; the lung was collapsed backwards, and a large opening, capable of admitting the little finger, was seen near the apex; its tissue below was partially collapsed, and there were patches of gray tubercle and pneumonia scattered about. Air freely bubbled through the rent on blowing into the trachea.

CASE II.—Martha B., *æt.* 19, was admitted into Brompton Hospital, under the care of Dr. Alison, March 29th, 1869. This patient was hereditarily predisposed to phthisis, and had suffered from cough for six months. On admission, she presented the signs of cavities at both apices, with softening below, the left lung being most diseased. The symptoms of pneumothorax came on insidiously, but on May 8th the signs were distinct on the left side, the amphoric respiration being very well marked. Patient died May 21st.

*Post mortem.*—There was no difference in the expansion of the two sides. The left was hyper-resonant, the resonance extending over the ordinary position of the heart's dulness and across the median line to the right margin of the sternum. The

air-pressure was tested as in the former case, and found to be *nil*. The heart was then transfixed by a stilette thrust in at the fourth right interspace, close to the sternum, and the cartilages removed. The mediastinum was found to be curved, with its convexity to the right, thus, commencing at the episternal notch; its left border arched to the right border of the sternum at the third cartilage, and thence gradually downwards to the left of the ensiform cartilage. The heart's apex was opposite the fifth rib, exactly in the middle line; its right border corresponded with a line drawn vertically downwards from the middle of the right clavicle. Axis more vertical than natural. The left pleura contained about a pint of purulent fluid. There was a large opening in lung-pleura, opposite to the third rib, freely communicating with a cavity. Both lungs were extensively disorganized, the disease being the pneumonic order of phthisis. On the surface of the left pleura there were many scattered yellow patches, where the pleura had nearly given way from rapid softening down of subjacent consolidations.

*Remarks.*—These cases present many points of interest, but my special reason for publishing them is that they illustrate very clearly the great displacement of the heart which may take place without any direct pressure, as the simple result of the elastic recoil of the unruptured lung acting on the flaccid mediastinum unopposed by that of the opposite lung. This physiological fact places cardiac displacement in the front rank among the signs of pneumothorax, since it necessarily follows immediately upon the entrance of air into one. Though previously satisfied as to the fact by experiments on the dead subject, and on a dog, and also from clinical observation, I was somewhat astonished to find the displacement so considerable in these two cases. These cases show very well this important clinical fact, *viz.*, that displacement of the heart is not necessarily a result of pressure, even when very considerable, and is, therefore, in itself *no sufficient* reason for the performance of paracentesis. The presence of true amphoric respiration, *i. e.* the amphoric quality accompanying both inspiration and expiration, is the sign that the entry and exit of air is free, the opening non-valvular, and hence the absence of pressure. Very interesting results would be obtained if gentlemen who have opportunities of performing paracentesis, either for fluid or air, would connect a pressure-gauge with the

trocar, and ascertain the pressure within the pleura before allowing the air or fluid to escape.

From the Prospectus of the Course of Instruction in the Massachusetts College of Pharmacy we learn that the following gentlemen constitute the officers and faculty: *President*, Thomas Hollis; *Vice Presidents*, Charles A. Tufts, Samuel M. Colcord; *Recording Secretary*, Henry W. Lincoln; *Corresponding Secretary*, George F. H. Markoe; *Treasurer*, Ashel Boyden; *Auditor*, Elijah Smalley; *Trustees*, Daniel Henchman, Augustus P. Melzar, Albert G. Wilbor, Edward H. Perry, James S. Melvin, George D. Ricker, Robert R. Kent, Joseph L. Parker; *Faculty*—James F. Babcock, *Professor of General and Analytical Chemistry*; Cyrus M. Tracy, *Professor of Materia Medica and Botany*; George F. H. Markoe, *Professor of Theory and Practice of Pharmacy*. We make a few extracts from the prospectus:—

“The Massachusetts College of Pharmacy was instituted in 1823, and incorporated in 1852. It has always included in its membership the best pharmacists of Boston, and also counts among its members many who reside in other parts of New England.

“The College has at various times since its organization employed lecturers to give lectures on chemistry, but no effort was made to establish a permanent School of Pharmacy until 1867, when a class of thirty-five students was formed to whom instruction was given by three courses of lectures.

“This effort was so successful, and so much interest was awakened, that the Trustees of the College decided to carry on the school, and thus give the young men engaged in learning the business of a druggist and pharmacist an opportunity to become familiar with those branches of science so necessary for the successful practice of the very responsible duties that belong to the pursuit of pharmacy as a business.

“The scheme of instruction for the session of 1869-70 will include the departments of Chemistry, Materia Medica, Botany and Pharmacy. These branches will be as thoroughly and as practically taught as the extent of the course will allow. It is earnestly hoped that the pharmacists and druggists of Boston and New England will support the Trustees and Faculty of the College in this effort to elevate the standard of pharmacial education, and that they will secure the success of the school by sending

their young men to this course of instruction. \* \* \* \*

“*Qualifications for Graduation.*—Every person upon whom a diploma of this College shall be conferred must be of good moral character, must have arrived at the age of twenty-one years, have attended two courses of each of the lectures delivered in the College, or one course in this College and one course in some other recognized College of Pharmacy; or when no such College exists in his locality, in some other recognized (medical) College where the same branches are taught; and have served an apprenticeship of at least four years with some person or persons qualified to conduct the business of a pharmacist, of which fact he must produce satisfactory evidence to the board of examiners. He must also produce an original dissertation, or thesis, upon some subject of pharmacy, materia medica, chemistry, or one of the branches of science closely connected therewith, which shall be written with neatness and accuracy. The thesis, with the evidence of apprenticeship and diploma fee, shall be deposited with the Professor of Pharmacy, on or before the first of March of the session in which the application shall be made. He must also be recommended in writing by the committee of examination and the professors jointly, and if his application be finally approved of by the board of trustees, he shall receive the diploma of the College.

“The regular examination for the degree shall take place in April. A second examination will be held, when necessary, in the month of June, of which those students who may not have accomplished their terms of service at the regular examination (and other qualified applicants) may avail themselves.

“Only such students as may have served their time in *dispensing stores* will be entitled to the degree of Graduate in Pharmacy. Clerks from wholesale drug stores will receive a certificate of proficiency, and *will not be examined in extemporaneous pharmacy*. Medical students and others who are not looking forward to Pharmacy as their calling, will be admitted to the lectures in either of the departments they may wish. Such persons will be ineligible to the degree, but will in other respects have the same advantages as regular students of Pharmacy. The reason for this distinction is, that the art of dispensing medicines can only be properly learned by long practice at the dispensing counter; lectures, be

they never so good, are only valuable aids to practical instruction, and utterly fail to make a good dispenser in the absence of careful, practical training under the supervision of a competent preceptor."

EXPULSION OF MR. F. STEARNS FROM THE AMERICAN PHARMACEUTICAL ASSOCIATION.—The resolutions offered by Dr. E. R. Squibb yesterday, and on motion laid over till this morning, were now read.

*Whereas*, it must be an object of this Association, in common with all others of similar character, to oppose what is wrong within the sphere of its action and influence; and *whereas*, the constitution of the Association asserts that its objects are to elevate the standing, increase the knowledge, oppose the adulteration, and suppress the empiricism of pharmacy; and *whereas*, a member of this Association has put forth a nostrum called "Sweet Quinine," which contains no quinine, and is, therefore, a fraudulent imposture, therefore

*Resolved*, That Mr. Frederick Stearns has, in this so-called "Sweet Quinine," and in the advertisements concerning it, violated the sense of moral rectitude of this Association, and has violated its constitution and the general purposes of its organization.

*Resolved*, That for these offences Mr. Frederick Stearns, of Detroit, be expelled from this Association.

Remarks were made by Messrs. Colcord, Stearns, Procter, Shinn, Balluf, and Tufts, when a substitute for Dr. Squibb's resolution was offered by Wm. Wright, Jr.

"*Resolved*, That in the manufacture and manner of advertising the article known as Sweet Quinine, Mr. Frederick Stearns, of Detroit, has committed a serious offence against the ethics of this Association, and is deserving of its severest censure."

After remarks by several of its members, the ayes and nays were called for, the Delegates first, and members in attendance afterwards. The resolution of Mr. Wright was lost—thirty ayes to sixty-four nays. A motion to lay over the matter for one year was lost—twenty-four ayes to fifty-six nays.

The original resolutions of Dr. Squibb then came up, and were carried by sixty-three ayes to twenty-two nays.

The President, Mr. E. H. Sargent, then said:—It becomes my painful duty to announce that Mr. Frederick Stearns, of Detroit, is, by vote of this Association, expelled from its membership.

•Mr. Stearns rose and said that he thought

the action of the Association unjust; it had judged him by what he had done, he hoped that they would judge him in future by what he should do. He retired from the Hall.—*Druggist's Circular*.

This act of the American Pharmaceutical Association—the expulsion of an ex-President in vindication of its own integrity, at a cost of untold grief on the part of members by whom Mr. Stearns had been loved and trusted—places the Association in a position to demand our unqualified admiration. It may well put to the blush the inadvertence on the part of our Profession which has allowed the notices of "sweet quinine" in the editorial columns of medical journals of this country and the British Provinces for the last six months or more.

THE NEW HYPNOTIC, CHLORAL.—In a lecture recently delivered by Herr Liebreich before the Berlin Medical Society, the following statements are made.

The form best adapted for administration is the hydrate,  $C_2HCl_3O \cdot H_2O$ . This substance is white and glistening, has a pungent odor, a bitter taste, and is easily soluble in water. When injected under the cutis, it causes no local irritation. Liebreich has thus employed it in a number of cases in the treatment of insane persons. In the dose of 1.35 grammes, it usually brings on a sleep of five hours' duration. In the case of a patient affected with melancholia and stupor, 3.5 grammes dissolved in a wineglass of water and given by the mouth produced a sleep of sixteen hours. In a case of very painful inflammation of the wrist-joint, about 2.5 were given, followed by hypnosis and anaesthesia to an extent sufficient to allow of bandaging the wrist, which had been impossible before. In all the cases the sleep was natural in character.

Von Langenbeck, in a lecture upon the application of hydrate of chloral to the treatment of delirium potatorum, describes a case of comminuted fracture of the humerus, followed by violent delirium tremens; 0.42 gram. of opium, with brandy, was given during twelve hours without effect. Gangrene appeared threatening, and exarticulation was thought of. Von Langenbeck ordered 4 gram. of hydrate of chloral, to be swallowed in one dose, and afterwards 2 gram., to be injected three times in quick succession. A sound sleep followed, lasting sixteen hours, from which the patient awoke free from his threatening

symptoms. Von L. thinks he has observed favorable effects in a case of trismus traumaticus.

It was stated, at the same time, by von Bardeleben, that he had likewise observed excellent effects in many cases from internal doses of 2-5 grammes. A good formula is the following:—

R. "Hydrate of chloral," 2 grammes;  
Aque destillatæ,  
Syrupi simplicis, aa 15 " "  
M. S. For one dose.

—*Allg. Med. Centr. Ztg.*, Nos. 64 & 65.

D. F. L.

CHLORAL.—Dr. Liebreich's recent paper at the Paris Academy of Sciences on the action of chloral says it is a trichloride of aldehyde, and is soluble in water, and as in this solution it exercises no irritant effect, it is very suitable for absorption into the economy. It takes its place between ether and chloroform as an anæsthetic.

Experiments made on rabbits have given the most satisfactory results. Profound and calm sleep has been maintained for eight or ten hours, and Dr. Liebreich adds that the rabbits on awakening have manifested none of the usual results, and have proceeded to eat with avidity.—*Dublin Med. Press & Circular*.

In an article in the *London Med. Times and Gazette* on hydrate of chloral and its use in practice, by T. Spencer Wells, F.R.C.S., we find the following statements:

"Chloral readily dissolves in water, and the solution is easily absorbed. The alkaline liquids of the body would therefore set chloroform free in the tissues. The other component, the formic acid, from its comparatively small proportion, can have but very slight effect.

"A minute dose of chloral was sufficient to produce the symptoms of narcosis from chloroform in a young rabbit; the animal fell gradually asleep, but without the stage of excitement. Regular pulse and respiration were the only evidences of life."

DEATHS FROM CHLOROFORM.—Dr. A. T. Hudson, late surgeon United States Army, records (*Pacific Medical and Surgical Journal*, July, 1869) the following case which occurred in the summer of 1863, in front of Atlanta, Ga. The patient was a robust soldier, belonging to the 76th Ohio Infantry, aged about 30. He was to undergo an amputation of a portion of one hand. Chloroform was given in the usual way.

He had not taken more than six inspirations before the breathing became difficult and stertorous, the pulse ceased, and in a few moments he was dead. Artificial respiration and all other means tried were of no avail. A *post mortem* the next day revealed nothing. Death was thought to be owing to paralysis of the heart.

In the same journal another case is recorded, which occurred in private practice in the summer of 1855. A strong, robust man, aged about 40 years, who indulged in occasional fits of intemperance, fell and dislocated the head of the humerus. Three days after—the patient meanwhile becoming quite sober—the physician in attendance sent for Dr. E. Bently, United States Army, to reduce the dislocation, and, while the latter was making proper preparation, chloroform (amount not known) was poured upon a sponge and held to the nostrils. After a very few inhalations, unconsciousness ensued, and, with the heel in the axilla, the head of the humerus was replaced with an audible snap. Immediately thereafter the face became livid, and death took place from asphyxia. For more than an hour, though deserted by the alarmed attendants, and even by the other doctor, Dr. Bently employed all means to resuscitate, at his disposal, but in vain. He learned that the man was reported by his physician to have died of apoplexy.—*N. Y. Medical Journal*.

A DEATH from chloroform is reported from the Hanley Infirmary. The newspapers report that there was fatty degeneration and enlargement of the heart, and that "matter" was present on the surface of the brain.—*London Med. Times & Gazette*.

VELOCITY OF CEREBRAL FUNCTIONS.—From a paper in the *Archives des Sciences* for April 15th, by Dr. Adolph Hirsch, on M. F. C. Donders's experiments to determine "the velocity of the psychical functions of the brain," as detailed in the *Archives de Reichert et du Bois-Raymond*, the *Journal of Psychological Medicine* extracts the following passages:—

We know now that the brain requires about fifty-thousandths of a second to distinguish and signalize the distinction between two colors, and only fifty-thousandths of a second to distinguish between two vowels which are pronounced. What is more, M. Donders has succeeded in sepa-



rating these two psychical acts into their components, and he has found that the brain employs about  $\frac{1}{25}$  of a second to recognize an impression, and  $\frac{1}{25}$  of a second for an act of volition to signalize that the impression has been received. \* \* \*

M. Hirsch thus describes M. Donders's apparatus:—"The noematachograph is composed of a cylinder somewhat like that of the pantograph, on which time is registered by means of a diapason making 261 vibrations in a second, and moved by electro-magnetism, on the principle proposed by Helmholtz. These vibrations can be divided into fifths, and thus thousands of a second obtained. The time at which the action which produces a sensation occurs is registered by the machine, and likewise that of the sensation experienced by the power experimented upon.

"The mode of accomplishing this varies according to the means of excitation employed. When an inductive current is used to give a slight shock or prick to any portion of the body, or to light up suddenly different letters, or when the spark is observed through colored glasses to produce the sensation of different colors, the current itself makes its own registry by a spark passing between the style of the diapason and the cylinder, through a sheet of blackened paper, in which it makes a little hole. The observer registers his perception by touching a key, which causes a style to mark the cylinder. To avoid the error introduced by the variable time taken by electro-magnets in attracting their armature, M. Donders prefers a purely mechanical signal. The person under observation turns aside a horizontal bar of wood carrying a point, which marks the cylinder. By holding this indicator between two fingers, and turning it right or left, two signals can be given to express different sensations."

Experiments on hearing are then taken up. Will any one tell us how allowance is made in these experiments for the time occupied by muscular action in signalling?

**IMPORTANCE OF ROUNDING THE EDGE OF THE TIBIA IN AMPUTATIONS THROUGH THAT BONE.**—Mr. Porter exhibited to his class at the Meath Hospital, Dublin, a man aged 34 years, whose leg had been amputated by him eighteen days previously, for extensive disease of the os calcis, attended by ulceration of the neighboring soft parts. He called their attention to the operation which

he had performed—that at "the place of election"—and to the good stump which resulted. He had used no dressing, save cold water, and during the last few days a little chlorinated solution, and the lines of incision were now almost entirely healed, and certainly were as nearly well as if carbolic acid, or any other application, had been employed. But the particular point to which he asked their attention, was the importance of carefully rounding off the anterior edge of the tibia in this and other amputations through that bone. There was a great tendency for the anterior flap, which in this operation is composed of skin, to ulcerate over the end of the tibia, and in order to avoid that consequence, he had found great benefit in not merely sloping the saw in the beginning of the operation, removing it, and re-entering it at right angles to the long axis of the bone, or in cutting straight across at first, and then sloping off the prominent anterior edge, as generally recommended; but in making only one cut, using Butcher's saw, and sloping it during the entire of the division of the bone, so as to round off the end in a gentle curve from its anterior to its posterior edge. He made this a constant practice, and he had never found the bone to cause any disagreeable after-effects in a stump thus formed.—*Dublin Medical Press and Circular.*

In Paris, the other day, a girl was observed on the street with a wooden leg under her arm, while a gentleman was calling to her from a window on the opposite side of the street, gesticulating fiercely and demanding her return. To the large crowd which the scene attracted, the girl made explanation that she was washerwoman to the gentleman, that he would not pay her, that she visited his lodgings to demand her money, and that on his refusal she had taken possession of his wooden leg, purposing not to return it until she had received her money.—*Physician and Pharmacist.*

**EXTRAORDINARY OPERATION.**—Dr. Böhm, a celebrated German surgeon, has recently performed the operation of separating two female children, five years of age, who were joined together in the same manner as the Siamese twins. The German papers state that the operation was attended with perfect success; but one of the patients seems to have died the same day. The survivor is in good health.—*New York Medical Record.*

## Medical Miscellany.

**THE PHYSICIANS' VISITING LIST FOR 1870.**—We present our thanks to Messrs. Lindsay & Blakiston for a copy of "The Physician's Visiting List for 1870"—to us an adjunct of the New Year as indispensable as New Year's day itself. If there are any who need to be told, they may here read that its contents are, as follows, viz. :—

Almanac; Table of Signs; Marshall Hall's ready Method in Asphyxia; Poisons; and their Antidotes; Table for calculating the Period of Uterogestation; Blank Leaves, for Visiting List, Monthly Memoranda, Addresses of Patients and others, Addresses of Nurses, their references, &c., Accounts asked for, Memoranda of Wants, Obstetric Engagements, Vaccination Engagements, Record of Births, Record of Deaths, General Memoranda, &c.

**DEATHS IN THE CITY OF PROVIDENCE, SEPT., 1869.**—There were 104 deaths in the city of Providence during the month of September, or 30 less than in the preceding month, and 18 less than in September, 1868. Though the whole number of deaths was 30 less in September than in August, the number from summer complaints was nearly the same. This might be expected from the weather in the two months, the atmosphere being, apparently, as favorable for decomposition of filth, and the production of foul air in September as in August. The average for the six years, previous to 1869, for the months of July, August and September, was 108, or 10 more than in the present year; and this, notwithstanding the large increase in the population of the city, by annexation and otherwise. Of the 32 decedents from summer complaints, 10 were of American, and 22 of foreign parentage. Of the 53 decedents under 5 years of age, 15 were of American, and 38 of foreign parentage. Of the 10 decedents from scarlatina, 1 was of American, and 9 of foreign parentage.

**MASSACHUSETTS GENERAL HOSPITAL.**—Drs. J. C. Warren and R. Willard have been appointed Physicians to out-patients at the Massachusetts General Hospital—in addition to the present staff.

**THE CHILDREN'S HOSPITAL.**—Dr. B. E. Cotting and Dr. John Homans have been elected members of the Medical Staff of The Children's Hospital by the Board of Managers of that Institution.

**PROF. LUDWIG BOEHM**, whose fatal illness we reported a short time since, deceased on the first day of August. Among other things Prof. Boehm was distinguished for the best description extant of the intestinal glands; and his teachings upon the anatomical changes in cholera are classic to this day. He also published important works on Strabismus, on the accommodation of the eye and on other ophthalmological subjects.

**BOOK TRADE CHANGES.**—No one who has been familiar with the pleasant atmosphere of the old store with the round numbers, for many years past, can doubt that Mr. Alexander Williams will carry with him into the "Old Corner," 135 Wash-

ington Street, Boston, the administrative ability and peculiar tact required to make a popular and successful Bookstore, and to fully sustain the reputation the place has gained in past days. Messrs. A. Williams & Co. will do at their new place a general book business, leaving the periodicals behind at the old stand, and will also retain the agency for the publications of Harper & Brothers, and the important specialties of agricultural and mechanical books.—*Boston Daily Advertiser.*

**A MORPHINE EATER.**—A laborer residing in Brunswick, Maine, has paid out during the last fourteen years about \$1,300 for morphia, for the use of his wife. This expensive helpmate for a working man once walked twenty-four miles to get her usual supply.—*Physician and Pharmacist.*

### MEDICAL DIARY OF THE WEEK.

**MONDAY, 9, A.M.,** Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.  
**TUESDAY, 9, A.M.,** City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.  
**WEDNESDAY, 10, A.M.,** Massachusetts General Hospital, Surgical Visit. 11, A.M., OPERATIONS.  
**THURSDAY, 9, A.M.,** Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.  
**FRIDAY, 9, A.M.,** City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.  
**SATURDAY, 10, A.M.,** Massachusetts General Hospital, Surgical Visit; 11, A.M., OPERATIONS.

**TO CORRESPONDENTS.**—Communications accepted:—Cases of Inflammation of the Cecum, &c. &c.—Case of Strangulated Inguinal Hernia.

**PAMPHLETS RECEIVED.**—*The Probe: An Inquiry into the Use of Stimulants and Narcotics, the Social Evils resulting therefrom, and Methods of Reform and Cure.* By Joseph Parrish, M.D. Issued quarterly, from the Sanitarium, Media, Pennsylvania. Pp. 32.—*Last Illness of Dr. Alden March, of Albany.* By Drs. McNaughton, Boyd and Armsby. Pp. 11.—*Transactions of the New Hampshire Medical Society (Seventy-ninth Anniversary), held at Concord, June 15 and 16, 1869.* Pp. 94.—*Electricity as a Means of Diagnosis.* With a tabulated statement of 500 Cases of Disease, treated mainly by the method of General Electrization. By A. D. Rockwell, A.M., M.D., Fellow of the New York Academy of Medicine, &c. Pp. 20.—*Address of Alex. Dunlap, A.M., M.D., of Springfield, Ohio, at the Twenty-fourth Annual Meeting of the Ohio State Medical Society, held at Columbus, June, 1869.* Pp. 13.—*An Address commemorative of Reuben Dimond Mussey, M.D., LL.D., and Introductory to the Annual Session of the Dartmouth Medical College.* By A. B. Crosby, A.M., M.D. Pp. 23.

**DEATHS IN BOSTON** for the week ending October 9, 109. Males, 47—Females, 62.—Accident, 1—imperfected anus, 1—apoplexy, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 1—cancer, 2—cholera infantum, 13—consumption, 16—convulsions, 1—cyanosis, 1—debility, 1—diarrhoea, 8—diphtheria, 2—dropsy, 2—dropsy of the brain, 2—drowned, 1—dysentery, 2—scarlet fever, 1—typhoid fever, 5—haemorrhage, 1—disease of the heart, 3—infantile disease, 4—disease of the kidneys, 2—disease of the liver, 2—inflammation of the lungs, 5—marasmus, 10—old age, 4—premature birth, 1—puerperal disease, 1—scalded, 1—scrofula, 1—suicide, 1—tumor, 1—unknown, 7.

Under 5 years of age, 50—between 5 and 20 years, 7—between 20 and 40 years, 20—between 40 and 60 years, 20—above 60 years, 12. Born in the United States, 79—Ireland, 25—other places, 5.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, OCTOBER 21, 1869.

[VOL. IV.—No. 14.]

## Original Communications.

### ON THE INTERNAL ADMINISTRATION OF CHLOROFORM IN CONGESTIONS.

By J. F. A. ADAMS, M.D., Pittsfield.

THE two following cases are reported to illustrate the almost instantaneous action of chloroform in controlling congestions:—

CASE I.—*Congestion of Lungs and Brain.*  
L. H., bachelor, aged 25; workman in glass-works in summer, music-teacher in winter; temperament *nervo-sanguine*, constitution strong. In 1863, having previously been a sailor, he enlisted in the navy, and was attached to an iron-clad. During an engagement, as he was standing between decks, with his back against an iron stanchion, a shell struck the upper deck, directly over his head; and the thrill communicated to the stanchion threw him forward upon the deck, insensible. For five months, he was disabled, being partially paralyzed, and unable to straighten himself. On his recovery he enlisted in the cavalry, but, after a short time, while on the march in a hot sun, he fell from his horse insensible, and was supposed to have a sunstroke. This was followed by a prolonged sickness, in consequence of which he was discharged. Since then, he has had good general health, but has had two attacks of violent convulsions and delirium, beginning with hæmorrhage from the lungs, and each followed by an alarming illness of several weeks, judged from the account of symptoms to have been brain fever. He has also been subject to severe headaches, accompanied with numbness of the left side.

On June 8th, 1869, he was well until 1, P.M., when he was attacked with headache, and went to bed. Shortly after, he felt great oppression at the chest, and expectorated a little frothy blood. He then became convulsed and delirious.

Was first seen by me two hours after the first attack. Was then wildly delirious, requiring to be held by several men; struggling for breath; clutching at the chest; face and lips livid; pulse 100, very full and

hard; pupils slightly and equally dilated, not sensitive to light; patient entirely insensible to all external impressions. On auscultation, respiration was found to be chiefly tubular. This condition soon gave place to an epileptiform convulsion, with total insensibility, opisthotonos, but no frothing at the mouth. After some minutes, relaxation took place, he became partly conscious, and, after dozing a few minutes, again became wildly delirious. This alternation, I was told, had continued from the first. Had also short, convulsive cough, without expectoration. These symptoms leading me to a diagnosis of congestion of the lungs and brain, I gave, by the mouth, chloroform  $\mathfrak{ss}$ ., with fl. ext. ergotæ (Squibb's),  $\mathfrak{ss}$ ., applied mustard to the chest and ice to the head, after cutting the hair short. In less than five minutes the breathing became deep and natural, he ceased to clutch at the chest, the lividity of the face disappeared, and the pulse became softer. From this time he had no convulsion, but was actively delirious, at intervals shouting and struggling, for two hours longer, during which time the same dose of chloroform and ergot was repeated every half hour. At 5, P.M., he had ceased to be delirious, and slept naturally. I gave a cathartic, and left him till 7, P.M. On my return, he was awake, quiet and rational; pupils normal; breathing naturally; feeling extreme exhaustion; left arm and leg completely paralyzed. Pulse very soft, 120. From this time there was no return of the symptoms. At 9, P.M. he was given a pill of morph. sulph., ext. belladon.,  $\text{aa}$  gr.  $\frac{1}{4}$ . He slept pretty well, vomiting once and having one dejection during the night. The next morning the paralysis had disappeared; and, in the afternoon, he sat up, but felt very weak, and had nausea and occasional vomiting. This was entirely relieved by one five-grain dose of subnitrate of bismuth. He also had one grain of sulphate of quinine every three hours. On the sixth day he walked out and came to my office, and soon afterwards returned to work. Since then he has had excellent health and no cough; but has had occa-

sional headaches, especially after violent exertion. A thorough examination of the lungs has shown them to be free from disease. This attack was said by the patient and his friends to be precisely similar to the two he has had since leaving the army, beginning with hæmoptysis, and going on to convulsions and delirium; but they were each followed by several weeks illness, with symptoms described like brain fever, and a tedious convalescence. The instant relief of the pulmonary and cerebral congestion I attribute to the chloroform, which was aided a little later by the ergot, my experience of whose value in convulsions has been most happy. It is probable that, by this early relief of cerebral congestion, an attack of cerebral inflammation was evaded.

CASE II.—*Hæmoptysis*.—W. B., widower; aged 51; commercial traveller; temperament nervo-bilious; of phthisical family; constitution originally very strong, but now broken by hard work and dissipation. For several years has suffered with asthmatic cough and dyspnoea, but has not had hæmoptysis.

On the morning of July 16th, 1869, did not feel very well, and drank some hot spirits. Soon after, profuse hæmoptysis came on. When I saw him, shortly after, he had lost a full pint of bright, frothy blood, mixed with clots, and was still bleeding; felt great oppression across the chest, and said he could feel the blood flowing from a point in the lower portion and front of the left lung. I gave him immediately chloroform ʒss. The bleeding ceased, almost instantaneously, and he said the oppression at the chest was removed, as soon as he had swallowed the medicine. The chloroform was repeated three times, at intervals of half an hour, combined, after the first dose, with acid. sulph. arom. ʒss. Patient soon slept and perspired very profusely; had occasional slight cough, but no bleeding till evening, when another attack came on, almost as profuse as the first; and the next day there were two others. They were all treated in the same way as the first, with the same immediate arrest of the hæmorrhage. During the intervals, acid. sulph. arom. and acid. gallic. were given. After the fourth attack, patient was extremely exhausted, having lost nearly if not quite a pint of blood, at each attack. He was then given pills of plumb. acet. and opium, and has since had no hæmoptysis, though he has had cough and expectoration, with general debility. On auscultation, the lower half of the left lung was found full of tubercles.

The action of the chloroform, in this case, seemed to be, to relieve the pulmonary congestion, as shown by the immediate cessation of the "oppressed" sensation, and arrest of the hæmorrhage. It therefore seems to me an invaluable remedy in hæmoptysis. I have never heard of its being so used before, and would be glad to hear of similar cases.

I have also treated several cases of colic, some of them of extreme severity, with chloroform, in doses of from ʒ½ to ʒj.; and always with immediate and complete relief. These doses are always followed by profuse sweating, and, after a few hours, by more or less nausea and vomiting, which is always, in my experience, relieved by a little bismuth. In minute doses, I have found chloroform the best of all remedies for irritating bronchial cough, and, in these cases, use it largely.

#### A CONTRIBUTION TO THE PHYSIOLOGICAL STUDY OF VERATRUM VIRIDE AND VERATRIA, WITH EXPERIMENTS.

(Concluded from page 187.)

THE first peculiar effect produced by this drug, it may be noticed, is salivation; and this is followed by retching, movement of the bowels, vomiting, &c.; after this, the respiratory efforts are hurried, muscular actions are imperfectly performed, spasm of the bladder causes ejection of urine. Finally, death occurs, preceded by tetanic spasms.

Exp. V.—We will now compare with these another experiment, upon a small rabbit weighing only 15 ounces Troy.

<i>h.m.s.</i>	<i>Resp.</i>	<i>Condition of Pupil.</i>	<i>Circulation.</i>	<i>General Symptoms, Remarks, &amp;c.</i>
0.00	92	carefully examined.	240	1 centigr. inserted under skin of back, which made the animal cry out in a few seconds.
0.02				Animal now quiet.
0.05	slow & jerk'g.	contract'd.	144	Champing of jaws.
0.07			108	
0.09		dilated.		Large quantity of saliva oozes from the mouth.
0.11			no pulse.	Ears very cold and pale. Chest opened; heart pulsates feebly; r. ventricle and auricle distended with

blood. The contraction of auricle more rapid than that of ventricle (96:48) (120:30). Pulsation of each becomes more and more feeble and irregular, although the heart is kept moist. In 33 min., there is no pulsation visible.

Examination of the body, made immediately, showed the veins turgid, fauces and œsophagus pale, no peristalsis of bowels to

stimulation or to galvanic current, very slight contraction of leg muscles on electrical stimulation, heart empty, the lungs ecchymosed (one small hæmorrhagic spot in right side), brain normal.

An examination of this last experiment, showing that salivation is caused even when the drug is administered hypodermically, would induce us to consider, that it is not local irritation of the buccal mucous membrane which causes the salivary gland to throw out its saliva, but that this effect is probably caused by an irritation of the lingual nerve, or submaxillary ganglion, which Bernard\* has shown will cause salivation; but, before we investigate this phenomenon, let us compare with these first experiments that of the action of veratria on a dog.

Exp. VI.—To a vigorous bitch, of about forty-five pounds weight, was given 3ss. of chloroform until she became quiet. Then ether was used, and the animal bound upon the operating board.

<i>h.m.s.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Remarks.</i>
	148	34	Before the inhalation of chloroform.
	174	56	Imperfect anæsthesia.
	142	40	Perfect anæsthesia.
	134	40	
			Veratria gr. 33, dil. acetic acid, q. s., injected in right leg subcutaneously.
0.02.00	112	40	
0.05.15	120	36	Animal is calm.
0.06.15	112	40	
0.08.30	120	36	
0.09.30	116	32	
0.10.00	116	16	
0.12.30	114	15	Muscular quivering in trunk.
0.14.00	108	12	Ether is now removed.
0.16.00	108	10	Abdominal respiration.
0.18.00	102	84	
0.20.30	104	84	Respiration feeble.
0.25.00	102	123	Animal gasps.
0.27.00	88	11	Animal struggles.
0.30.00	36	32	Another gasp.
0.31.30	80	28	Skin is cold.
0.35.00	72	22	
0.37.30	84	17	Pulsation stronger.
0.40.00	98	10	Difficult and noisy inspiration. Struggles.
0.45.00	98	14	Expiration slow and noiseless; muscular contraction by electric stimulation feeble, especially in posterior train.
0.49.00	108		
0.52.00	120	15	Struggles violently. Irreg. resp.
0.54.00	120	13	Musc. relaxation; loss of sensat'n.
0.56.30	126	20	Difficult respiration, with violent movements of neck muscles.
1.00.00	108	12	Respiration very feeble, with mucous râles in throat.
1.05.00	128	ceas'd	
1.09.00	92		
1.09.30	gone.		No response to electrical stimulation of nerves, though the muscular fibres contract when the poles are applied to these directly
1.12.00			Nerves of neck and forearm exposed; electrical stim. does not cause muscular contraction.
1.15.00			

*Post-mortem* examination (immediately).—Heart normal in appearance; clots in left ventricle; fluid blood in right ventricle; right auricle contains blood which is slightly diffuent; left auricle empty. Lungs apparently healthy; crepitate between the fingers. Liver, kidneys, spleen and pancreas all normal. Stomach and intestines show slight arborescent redness. Stomach reddened on the inside, and nearly full of a viscid fluid like saliva. Bladder nearly empty.

It may be noticed that chloroform and ether were administered to produce anæsthesia. This was preliminary to an operation to measure the arterial tension which will be described and commented upon elsewhere (Exp. VI. *b*). This experiment is related in this place, as it was conducted with great care, and many assistants aided in the taking of observations, which it may be noticed are very accurately described. Attention is called to the fact that the general effect of the drug upon the vital functions agrees with other experiments upon animals not under the effects of an anæsthetic. The effect upon the respiration, if carefully observed, shows at first the depressing action of both veratria and ether; but from thirty minutes after the commencement of the experiment, and sixteen minutes after the removal of the ether, probably the peculiarities of respiration were due only to the veratria, viz., great irregularity of force and frequency, but less than one-half the number of respiratory efforts as in the normal condition, and this gradually reduced to zero. The effect upon the circulation can best be understood in connection with observations taken by means of the cardiometer. Suffice it merely to note that the sedative effect is progressive from the first, and that the heart stops pulsating after the respiration ceases, and this, too, very suddenly; though its force may have been very feeble for some time previous.

The stoppage of the respiratory effort resembles that of a person dying from paralysis, in consequence of lesion of the spinal axis, and we are strengthened in this supposition, by noting no part of the nervous system that will conduct electrical stimulation to the muscular fibres, though these last by direct stimulation will themselves contract. A careful examination of the *post-mortem* appearance points to no organic lesion, as all the viscera are apparently healthy, and death by asphyxia does not seem very manifest, there being no venous engorgement or sufficient ecchymosis

\* Vide Compt. Ren. de l'Acad. des Sci., 25 Ang. 1862.

of the lung tissue. We shall probably find as we continue our study that the cause of death is due to some physiological rather than anatomical lesion, perhaps to some vital derangement of the nervous system; but before we discuss this point, we will notice what important vital functions are interrupted or modified.

Absence of vomiting may be noticed in this experiment; and, consequently, the exhaustion induced by this terrible symptom cannot be the cause of death in the experiments previously reported. The fact that there was no vomiting in this case would tend to show that the chloroform or ether may have, by its peculiar action, prevented the appearance of this symptom.

#### CIRCULATION.

We will now consider the effects produced by this drug upon the circulation, illustrative of which will be the following carefully recorded experiment.

EXP. VII.—Green frog. Thorax opened and cardiac pulsations viewed.

<i>h. m. s.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Remarks.</i>
	25	48	Before administration. Tinct. veratri viridis officin. gtt. xij. now injected in groin.
0.02.00	26	46	
0.06.00		31-38	
0.09.00	28		Struggles occasionally.
0.11.00	21		Respiratory movement feeble.
0.16.00	24	ceases	
19-23	24		
0.25.00	24		Spasmodic movements.
0.28.00	24		Heart's contractions regular in force and frequency.
0.35.00	26		Position of animal changed.
0.36.00	26		
0.39.00	26		
0.59.00	24		
1.05.00	27	begins	Spasmodic movements.
1.10.00	30		Recovers & lives for a few days.

This may be considered the *therapeutical* action of this drug, as the animal recovered from the effects.\* The depressing effect upon the respiratory function is remarkable, and seems to be the sole symptom worthy of record, except that of the heart, which, instead of being slower, becomes more rapid than before the drug was given.

EXP. VIII. Green frog. Tinct. ver. vir. gtt. xxiii.

\* In this case respiration was, probably, carried on through the skin, until the drug was eliminated sufficiently to allow the respiratory movements of the thorax to be reestablished. In my notes, I find an experiment in which a frog lived one hour and twenty minutes under an atmospheric pressure varying from .100 to .010 m. Respiration having ceased, he was placed on a table. The next morning he was found alive upon the floor.

R. A.

<i>h. m. s.</i>	<i>Circ.</i>	<i>Resp.</i>	<i>Remarks.</i>
	40	50	Before administration. Thorax opened. Hypodermic injection of the above in groin.
0.01		48	
0.02	32	33	Respiration feeble.
0.05	40		Muscular quiverings.
0.12	32.8		Respiratory movements too feeble to count.
0.15	35		Respiration ceased.
0.17	33.3		
0.20	30		Moistened the animal with water.
0.21	35		Causes an improvement of circulation.
0.24	35		
0.26	31		Muscular quiverings.
0.30	31		Pulsation feeble.
0.33			Animal again moistened with water.
0.34	33.3		Causes temporary improvement.
0.36	32		Slight spasm. movements; mus. quiverings in posterior limbs.
0.38			Circ. very feeble. Gasps once or twice; resp. spasmodic.
0.41	30	14	
0.44	31	12	
0.47	31	5½	Reflex movements in lower limbs. Ventricular contraction very feeble. Auricle not visible.
0.50	31		
0.53		4½	Animal appears sensitive to irritation.
0.54	33		Reflex response less active.
0.57		15	Respiration jerky.
0.59	32		
1.00		15	Respiration feebler.
1.02	34		Respiration ceased. Sensation apparently preserved.
1.06	35		
1.10	33		
1.13	32		
1.17	31		
1.21	30		Musc. quiverings still continue.
1.25	30		Spasms. Reflex response continues.
1.36	30		Spasm. movements at intervals.
1.39	28½		Reflex response diminished.
1.42	28½		
1.44	27		Slight spasm. Reflex response gone.
1.48	25		

The animal was found dead the next day, and looked as if this happened very soon after the experimenter left. Here the action upon the respiration is very marked, and long after the cessation of this function, and for a short time after the loss of reflex action the cardiac pulsation is not materially modified. It may be objected to by some that the injury to the thorax caused more of the trouble than the drug. In reply to this it may be stated that the effects upon the circulation and respiration of frogs agrees with that of other and warm-blooded animals. But to settle any doubts the following experiment was tried and will now be related.

EXP. IX.—A frog was operated upon in the same manner as before described, by opening the thorax and exposing the ventricle and auricle (by the way, a very com-

mon experiment among physiologists), and the pulsations compared with those of another frog treated in the same manner, but to whom a poisonous dose of a solution of veratria had been injected hypodermically. The first frog had 33 cardiac pulsations each minute, while the second frog went through all the phases of veratria poisoning before described. The respiratory movement of the first did not vary for a week, and the circulation appeared very natural. At this time the animal died, but, as supposed, because he had been placed in a bottle the water of which was changed but once, from neglect. This demonstrates the fact that such an animal can survive an operation apparently so mortal.

*Brain.*—In none of our experiments were there any signs of cerebral lesion. The intelligence seemed to be perfectly retained almost to the moment of death. Indeed, in cases of poisoning in man this fact is corroborated. The animals could see, hear, feel and understand, so far as they ordinarily can. The only times that we examined the brain, there was apparently no cerebral apoplexy, congestion or anæmia, the only lesions which we should expect to find in a drug which causes death so soon after its administration.

In regard to the spinal cord we prefer to speak hereafter and more at length.

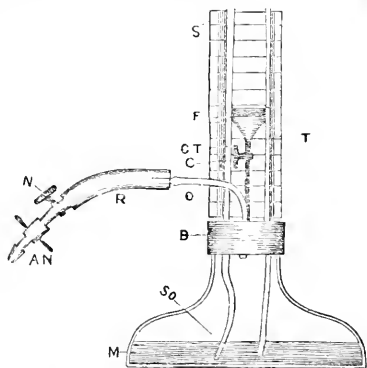
*Stomach.*—The excessive vomiting met with in poisoning from this drug has caused us to investigate the condition of that viscus, which only once did we find congested (Exp. VI.), and this we should suppose is accounted for by the fact, that digestion may have been going on at the time the drug was administered. The redness was not like that caused by an irritant, and in this case there was vomiting. Besides all these reasons the drug was administered hypodermically. Therefore, we conclude that the vomiting was not caused by the irritant action of the drug upon the mucous membrane of the stomach, but by irritation of the nervous periphery transmitted to the nervous centre, or of the nervous centre itself. Its effect upon the intestinal excretion being probably due to the same cause, we shall at present merely state that generally, though not always, an evacuation of the bowels occurs.

The secretion in the kidneys seems not peculiarly increased or diminished by this drug. Salivation, noticed in these experiments, is also, most probably, due to irritation, so called, of the nervous system, and not on account of any increased vascular determination to the secreting glands. Our

attention has not been especially directed to the other viscera by the symptoms noticed in our experiments.

The effect upon the circulation in warm-blooded animals has been carefully studied, and especially so by an instrument to measure the pressure of blood in the vessels.

*Description of the Instrument.*—The instrument used corresponds, with a few modifications, with one described by Dr. Brunton in his monograph on Digitalis. The results arrived at have been observed with four different instruments, always agreeing in every essential.



- S. Scale, divided into centimetres and millimetres.
- F. Copper funnel and tube, passing through the brass cap.
- C. Stop-cock to shut off escape or entrance to air.
- CT. Capillary tube, with constriction at lower end.
- T. Capillary tube, uniform diameter.
- O. Tube through which the blood-pressure is exerted.
- B. Brass cap, fitting on to the glass stand by a screw and washers.
- S O. Cavity of glass stand.
- M. Mercury.
- R. Rubber tube connecting with nozzle.
- N. Brass nozzle, with stop-cock.
- A N. Nozzle upon which the artery is fixed.

The accompanying plate will perhaps give a more definite idea of the hæmadynamometre. A glass stand is fitted with a brass cap (B) into which are inserted two glass tubes (T and CT) of the same calibre, though CT has a capillary constriction near its lower extremity where it dips into the mercury (M); also, a copper funnel-shaped tube (F), furnished with a stopcock (C) and another glass tube of larger capacity (O), with which the artery is connected by means of a rubber tube (R), in which is inserted a brass nozzle (N), furnished with a stop cock, and another nozzle (A N) furnished with a shoulder, by means of which a ligature will prevent the artery from slipping off, and to

prevent escape of blood, this latter (A N) fitting snugly on to the former (N).

This instrument was exhibited, and its action illustrated, to the Boston Medical Improvement Society, and to the Norfolk District Society.

By means of this instrument several experiments were undertaken, with a view to

determine any especial condition of the arterial pulsation which might be induced by the exhibition of this drug upon the lower animals. From these a few experiments are selected as having the most direct and positive bearing upon this question.

Exp. VI. *b*.—With hæmadynamometre in carotid artery. Dog, weighing 45 pounds.

<i>h. m. s.</i>	<i>Max.</i>	<i>Min.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Symptoms and Remarks.</i>
0.00.00	5.00 in.	4.65 in.	134 148 174	40 34 56	Chloroform $\frac{1}{2}$ oz., followed by ether inhalation. Anæsthesia; bound on the table. Veratrina grs. $\frac{3}{4}$ in acid. acet. dil. hypoderm.; struggling.
0.02.00	4.30	4.00	112	40	Animal calm.
0.05.15	4.00	3.60	120	36	
0.06.15	3.50	3.10	112	40	
0.08.30	3.10	2.80	120	36	
0.09.30	3.40	3.00	116	32	
0.10.00	3.30	2.90	116	16	
0.12.30	3.50	3.10	114	15	Muscular quiverings, especially in trunk.
0.14.00	3.45	3.00	108	12	<i>Ether removed.</i> Oscillation of mercurial column slight.
0.15.00	3.40	3.30			
	2.90	2.50			
0.16.00	3.10	2.80	108	10	Abdominal or diaphragmatic respiration.
0.18.00	2.50	2.00	102	8 $\frac{1}{2}$	
0.19.00	3.00	2.50			
0.20.30	3.40	3.10	104	8 $\frac{1}{2}$	Resp. feeble. Arterial tension increased on inspiration.
0.25.00	3.60	3.00	102	12 $\frac{1}{2}$	Animal gasps. Mercurial column ascends. Instrument cleaned, as oscillation of mere. col. ceased.
0.27.00	4.70	4.40	88	11	Instrument again cleaned, as oscillation has ceased.
0.28.00	3.90	3.70	80		
0.30.00	3.50	2.50	36	32	Respiratory gasp.
0.31.30	3.85	3.75	80	28	Skin of body cold to the touch.
0.33.30					Instrument again cleaned.
0.35.00	3.85	3.85	72	22	
0.37.30	4.50	4.30	84	17	Oscillation occurs when struggling.
0.40.00			98	10	
0.45.00			98	14	
0.49.00			108		
0.52.00	3.82	3.77	120	15	Instrument again cleaned.
0.54.00	3.77	3.70	120	13	Respiration irregular.
1.00.00	3.95	3.92	126	20	Musc. relaxation. Loss of sensation in the integument. Difficult resp., with violent movements of muscles of the neck and larynx.
1.05.00	3.90	3.87	108	12	Respiration very feeble and imperfect.
1.09.00			128	Ceased.	Coarse mucous râles in throat for the last 30 minutes.
1.10.00			92		
1.12.00			Ceased.		No response to electrical stimulation of nerves, though the muscular fibres contract when the electric poles are applied to the muscles directly.
1.15.00					Nerves of neck and forearm exposed and isolated on glass rods; electricity applied to these, produces no muscular contractions.
1.35.00					The spinal axis in cervical and lumbar regions exposed (without bruising or cutting the membranes) and the poles of the induction coil applied to each spot, producing no muscular contractions anywhere; though applied directly to any muscular substances, the contraction of the muscular fibres is very marked.
N. B.			{ 148 174 142	34 56 40	Before the operation or administration of chloroform. Imperfect anæsthesia. Perfect anæsthesia.

Exp. X.—With tinct. ver. vir.  $\frac{3}{4}$ ij. Dog. Hæmadynamometre.

<i>h. m. s.</i>	<i>Mean height in inches.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Symptoms and Remarks.</i>
0.00.00		145 to 200 145 to 220 168 to 220 180	48 48 to 48 36 to 48 40	Anæsthesia by chloroform and ether.
0.03.30	5.20			Ether removed.
0.04.15	5.15			Oscillation 2-10ths inch. Hypoder. injec. into abdom. reg.
0.07.00	5.25	100	28	Animal calm.
0.07.00	5.21	64	26	
0.09.00	5.20		26	Cries on expiration.
0.09.45	5.18	61		Occasional resp'y gasps. P. feeble. Attempts to vomit.



<i>h. m. s.</i>	<i>Mean height in inches.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Symptoms and Remarks.</i>
0.12.45	5.20	76		Spasmodic movement of diaphragm.
0.16.15	5.20	92		Blood dark colored from artery.
0.19.00	6.40			Mere. column ascends on inspir. and descends on expir.
0.21.30	5.75	128	16	
0.23.30	5.65		6	Respiration very irregular.
0.25.15	5.61		48	Respiratory movements suddenly recommenced.
0.26.00		120	16	
0.27.30	5.55	140		Pressure less on inspiration. Respiration irregular.
0.29.30	5.53			Three deep inspirations, followed by several gasps.
0.31.30				Intermission of slow pulsations.
0.33.45	6.00			Surface of skin cold. Several attempts at vomiting.
0.35.30		72	40	Respiration, irregular before, now recommences.
0.39.30	3.40	60		Pulse very intermittent.
0.43.00				Instrument clogged.
0.44.15			14	Dark blood oozes from artery drop by drop.
0.46.00				No response to pinching or pricking of skin.
0.46.30				Instrument removed. Respiration jerky.
0.48.00				Blood still oozing from artery, of a dark color.
0.51.45			11	Blood is drawn from artery by a syringe.
0.57.00				Ineffectual attempts at vomiting.
0.58.00		Ceased.	Ceased.	Vomits up yellow mucus.
0.58.00				Heart ceases its pulsations a few seconds after cessation of respiration.
1.01.00				Several movements of diaphragm, like those of vomiting. Thorax opened. Electricity applied causes muscular contractions of voluntary muscles. Heart will not contract from electrical stimulation.

*Autopsy.*—Dark fluid blood in right ventricle and auricle. Black clot in left ventricle. No fluid in pericardium. Lungs collapsed—nothing peculiar in appearance. Bladder distended with urine.

Exp. XI.—Hæmadynamometre. Dog, 60 pounds weight. Tinct. ver. vir.  $\zeta$ iv. and veratriæ q. s. Animal bound upon the operating board.

<i>h. m. s.</i>	<i>Max. in. centim.</i>	<i>Min. in. centim.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Symptoms and Remarks.</i>
	186*		136	21	Before administration of drug, but after inhala. of ether.
0.03.00	166	160			Instrument connected with right femoral artery.
0.06.00			180	24	Ether removed. Ver. vir. tinct. 2 dr. in left thigh.
0.20.00			120	20	Animal crying.
0.28.00	170				Great salivation.
0.31.00	160	140			Oscillation accords with respiratory motion.
0.33.00	200				Struggling.
0.35.00	153	150			Instrument,† being clogged, is removed.
0.37.00			180	18	
0.40.00			160	16½	Animal cries with expiration.
0.49.00			150	24	Continues the same till
0.58.00			120		
1.00.00			150	22½	Animal struggling.
1.04.00			200	20	
1.08.00			220	20	Intermission of one pulsation after each ten.
1.09.00			180	18	
1.12.00			200	18	Slight muscular quiverings. Expiration shorter.
1.15.00			180	16	No intermissions.
1.23.30			180	20	
1.27.00			220	18	Struggling.
1.34.00			150	17½	Surface of skin cold.
1.37.00			140	18	
1.39.00			180	17	
1.45.00				16	
1.48.00					Another dose of 2 dr. hypodermically, in axilla, causing apparent pain.
2.00.00	175	140	160	16	Instrument reapplied. Variation accords with respiratory movement.
2.09.00			160	19	
2.17.00			160	16	Animal is quiet.
2.28.00			144	15	Sensation apparently preserved.
2.35.00					Animal is now set at liberty and placed on the floor.
					Walks with a staggering gait, the muscles stiff and contracted, then falls over on to his side, and lies quietly, occasionally moaning.
2.42.00				14	Tries ineffectually to rise, constantly moaning, and seems uneasy.

\* 1 centimetre = 0.393 of an inch.  
186 centimetres = 7.3093 inches.

† This was of imperfect construction, and only the comparative result is to be considered.

<i>h. m. s.</i>	<i>Max. in Centim.</i>	<i>Min. in Centim.</i>	<i>Pulse.</i>	<i>Resp.</i>	<i>Symptoms and Remarks.</i>
2.50.00				16	Rises with great difficulty, staggering as before, but walking <i>backwards</i> more easily; suddenly falls down on to his side and lies with his limbs extended. Moans and constantly shifts position of his limbs; gets up on his belly, and then lies down again, curled up, with his head on his paws, in position of sleep.
3.00.00				14	Great trembling of muscles of head and body.
3.05.00			120	16	Lying down on side, and then rises to position on his belly. Subultus tendinum. On being raised to his feet, totters, whines and falls.
3.22.00					Has lain quietly, with occasional moaning.
4.20.00				16	Veratrine, dissolved in acetic acid, is given.
4.30.00					Hypodermic in left shoulder and in the lumbar region.
5.10.00				24	Has a defecation of soft feces.
5.20.00			68	48	Respiration irregular and sighing.
5.25.00				38	Expiration very short.
5.26.00				36	
5.28.00			64	36	
5.32.00			60	36	Pulse very regular. Expulsion of flatus.
5.36.00				56	Got up on his feet, and fell over suddenly; then arose and staggered across the room, falling over in a tonic spasm.
5.37.00			58	56	Noisy mucous respiration. Spasm. Stepping on the tail causes him to raise the head and to withdraw the tail.
5.48.00			58	48	Violent vomiting of a viscid fluid, with blood (from his bitten tongue).
					Another convulsion. Noisy respiration. Mucous râles in throat. Skin cold.
5.58.00					Respiration ceased for one whole minute.
6.03.00					Occasional respiratory gasps. Ejection of urine.
6.18.00					Reflex action of eyelids gone. Spinal cord exposed at dorsal and lumbar regions without being injured.
6.20.00			60		Electrical stimulation from induction coil produces no muscular contractions, one pole applied to each exposed portion. No muscular contractions when these are applied to an isolated nerve, or when one is placed on the spinal cord and the other on the crural nerve. The same is true of the sciatic nerve, except for the muscles in the immediate vicinity of the pole or poles; but, if the poles are applied to the muscular substance <i>anywhere</i> , there ensues violent muscular contraction of its fibres. (The contraction of the above muscles when the poles were applied to the nerves was due to the electric current exciting this muscular irritability, as the nervous filaments supplied by the sciatic nerve had been cut.) All of these experiments were completed within 25 minutes of the cessation of cardiac pulsation. Rigor mortis came on during these last experiments and continued over 30 hours after.
6.22.00			Ceased.	Ceased.	
6.42.00					

*Autopsy* (sixteen hours after death).—Dark red coagula in both ventricles and in right auricle. Left auricle empty. Right auricle full and flaccid, as also the right ventricle. All the valves intact and healthy.

Lungs collapsed and filled with dark-colored blood, somewhat like red hepatization, with slight crepitation under the scalpel or between the fingers. Liver healthy. Stomach contracted firmly and empty, with the rugæ well defined. No redness or injection of mucous surface; veins of external portion slightly injected. Blood coagulated as usual in the veins.

From a careful examination of the records of these experiments it will be noticed that the respiration becomes irregular before the depressing action upon the circulation is produced, thus pointing to phenomena which will be hereafter spoken of in connection with the nervous system.

It will be noticed that the operation of

connecting the instrument with the circulation was accomplished while the animal was in a state of anæsthesia from an inhalation of chloroform and ether; but also it must be remarked, that in Exp. VI. the anæsthetic was removed in fourteen minutes, that in Exp. X. the anæsthetic was removed before the drug was exhibited, and that in Exp. XI. it was removed in three minutes after injection of the drug; but that in all of these experiments the effects produced are coincident.

If the effects upon the respiration be carefully noticed, it will be seen that the respiratory movements grow more and more feeble, the muscles which assist in expanding and contracting the thorax perform their office in an imperfect way, and finally they become paralyzed. Our attention was directed early, during our course of experimentation, to this peculiarity, but it was only after an insight into the poisonous ac-

tion of this drug upon the nervous system was obtained, that the cause of this difficult respiration was remarked.

It will be still further demonstrated by the *post-mortem* peculiarities. The muscular fibres retain their power of contraction. But, yet, when the nerve going to these muscular fibres is stimulated, there is no contraction. The same is true in the motor-nervous centre, which seems to have lost all vitality, though this is not the case when death is caused through some other agency. The early presence of rigor mortis shows how the equilibrium between the muscular and nervous vitality is destroyed.

The turgescence of the right side of the heart would also point to the probable cause of death; viz, asphyxia, which would also explain the ecchymosis or marbriform appearance of the lungtissue, and perhaps, partially explain the convulsive movements. The catharsis, also, would show that the nervous influence from the spinal centre which maintains the tonic contractions of the sphincters and checks the peristalsis of the intestines, is lost or enfeebled, thus allowing the involuntary muscular fibres to contract and to evacuate the contents of the alimentary canal. Another apparent proof of this nervous paralysis is, that by relaxing the voluntary muscular fibres some of the symptoms peculiar to this drug, viz., vomiting, diarrhœa, and tetanic convulsions, are prevented. It is remarked, however, by Bernard in his lectures, delivered during this past winter, that, while in a state of anæsthesia, either the absorption of drugs is delayed or the manifestation of their symptoms is prevented. It is thought by us that the latter supposition is the most correct.

We do not pretend to explain all its peculiar action as being due to the paralysis of the motory centres. There is certainly some action upon the peripheral sensation (we do not use this as a scientific term), by which numbness is experienced; though every symptom proves that this numbness is not due to diminution of function in the nerves conveying the sense of pain, for the prick of a pin causes exaggerated pain. This peculiarity is very marked in cases of accidental poisoning from veratria, as well as by the local contact of the leaf or tincture of this plant upon the skin or mucous membrane.

So far as we can learn from our observations, the capillary circulation is not primarily modified by this drug.

Veratria causes by its absorption, in a way that we cannot now define, a paralysis, or

suspension, of the function of the spinal axis, or of the peripheries and termini of the nerves, and if carried to a certain extent, prevents the vital functions from being carried on, from which death results.

Prevost\* attempts by a series of experiments to disprove this supposition, but the fallacy of his reasoning may be determined.

He noticed that, when the vessels of a limb were severed and the nerves intact muscular rigidity did not exist; that, when the vessels were intact and nerves were cut, there was rigidity of the muscles. This experiment serves but to strengthen our supposition. By cutting the nerves, the nervous equilibrium is destroyed, and the muscular fibres contract in consequence, but if the nerves are whole and the vessels supplying these nerves with the vital fluid are severed, both nerves and muscular fibres lose their vital properties, as shown by Brown-Séquard in *Journal de Physiologie*, and there is no tetanic contraction. What renders Prevost's explanation of his experiment, viz., the direct irritation of the muscular fibres by the poisonous blood, more unsatisfactory is, that it is only by irritation of the peripheral nervous fibres that he produced this tetanic rigidity. The same effect is shown by the rigor mortis ensuing so soon after death.

As we do not presume to admit that there can be different and opposite physiological effects produced by different doses of the same drug, small doses of this drug enfeeble the spinal cord and modify the respiratory and circulatory functions; the former being first affected, as on account of the embarrassment of the thoracic muscles, this function would be suspended before that of the heart.

To prove more conclusively the effect of this drug upon the spinal cord, the following experiment was performed.

Exp. XII.—*A black and tan dog killed by asphyxiation; electrical conductivity of nerves.*

A wet towel was firmly held over and around the mouth of the dog, and the trachea compressed by the hand. For 0.10'. Imperfect respiration maintained; heart pulsates 66 per minute. After 13'. The head of the animal, now quiet, was immersed in a basin of water and maintained there till

20'. The cardiac pulsations could no longer be determined. The spinal cord was immediately exposed at the upper dorsal and lumbar vertebræ, at the latter place being slightly injured.

\* *Commentaires Thérapeutiques*, &c., p. 610.

36'. The poles of the induction coil were applied to the cord at the places exposed, and there ensued slight contractions in the muscles of the back and trunk. The sciatic

40'. nerve was then exposed, and isolated on glass rods; one pole of the coil being placed upon the dorsal portion of the spinal axis, and the other upon the nerve, caused the same muscular contractions. The same was true when the crural nerve, isolated in the same way, was touched by the two poles. The muscular contractility was as strong as usual. All of

45'. these experiments were concluded within twenty-five minutes after the death of the animal.

It may be here remarked, that the increased amount of carbonic acid in the blood (in consequence of death from asphyxia) may have prevented the muscular contractions from being as strong as we have seen in animals whose death has been caused in a different way or by another drug than veratria.

1 hr. 0'. *Autopsy.*—There was no rigor mortis; muscular relaxation perfect. An examination of lungs showed some congestion of left lower lobe, and a marbriform appearance of the other lobes, which on being cut showed the same peculiarity.

A comparison of this experiment with those by veratria shows that though asphyxia was one, and, perhaps, the principal cause of death; yet, the action of this drug is not confined to producing asphyxia, for in the last experiment the electrical stimulation produces a different effect from what was caused in Expts. VI., b, and XI.

We can then accept van Praag's conclusion that death is caused by a spinal paralysis, until further experiments may show some other explanation of the phenomena.

has had a place on our table for some time, has now been rendered into very excellent English by Drs. Matthewson and Newton, and the members of the profession generally are thus in possession of a valuable book on the membrana tympani in health and disease. The name of Politzer is not only well known to aural surgeons, but is becoming familiar to the general practice, especially as connected with his method of inflating the middle ear. The chief object in publishing this series of illustrations of the membrana tympani is to assist the practitioner in the perception of those material changes which can be recognized in the membrane. As is well known, even to non-specialists, the lesions of the external and middle ear on the whole furnish the most frequent sources of functional disturbance in the auditory apparatus; and again, such disturbances are often associated with changes in the membrane.

Acting on this idea, Prof. Politzer has very justly considered that the clear understanding of this portion of the auditory apparatus is of the first importance. He therefore devotes his first chapter to the anatomy of the membrane, giving therein the most modern investigations of the profession. He then describes, somewhat at length, the methods now employed for the inspection of the membrane and the appearances presented. The main body of the book is occupied with a discussion of the pathological states of the membrane, as shown under anomalies in transparency and color, anomalies in coherence and in curvature, and mobility of the membrane. The author is a surgeon of great experience; he has treated the subject in question very fully and skilfully, and the book should find a place on the table of every one interested in the treatment of the ear.

The book is especially remarkable for the beautiful chromo-lithographs of the membrana tympani. They were drawn and colored from nature by Dr. Politzer, and copied on stone by Dr. Heitzmann; the plates themselves being struck off in Vienna.

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## Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 21, 1869.

### NOTES FROM FOREIGN JOURNALS.

*Chemical Sign in Chronic Hepatitis.*—From the *Giornale Veneto di Scienze* we

translate a note by Dr. Primavera—On a Chemical Sign Distinctive of the Principal Periods of Chronic Hepatitis.

Every one knows that in a case of ascites an analysis of the urine is indispensable to the sure distinction of Bright's disease from other disorders which are wont to give rise to that form of dropsy; and especially to its diagnosis from cirrhosis of the liver. But it is not known to every one that the renal lesion once eliminated, and the chronic hepatitis admitted, the same assay, considered from another point of view, serves another purpose—viz., to distinguish the incipient from the advanced period of the affection. It is true that the semeiology, together with the employment of percussion, furnishes a potent means of solving the question; but besides that in such important matters there is no harm in having an additional indication, I may be permitted to observe that the displacement produced by the ascites, and also the latter lesion itself, often puzzle the most expert clinicians. I therefore hasten to publish the result of a series of observations, clinical, chemical and anatomical, registered during the last two years in the annals of our hospital clinique, and expressed in this formula, which may be called a true semeiological law—in cases of chronic hepatitis, whether interstitial or parenchymatous, the analysis of the urine furnishes, by itself alone, a means of distinguishing the incipient from the advanced period of the disease. To explain. In the first stage, the urine of the patient whose liver has become the seat of cirrhosis by degeneration and atrophy of the parenchyma always contains something of a yellowish green color, except in rare cases when it is not visible, by reason of the predominance of a certain purple matter (*ureoritrina*). But even in the latter case, this nameless biliary pigment of the yellowish green hue, is not absent, as may be shown by means of chloroform—its only re-agent. *Vice versa*, when the hepatic parenchyma, either through inflammation or by compression resulting from hypertrophy of the connective tissue, comes to be spoiled, and, as it were, destroyed, then this peculiar biliary pigment is lost in the mass of the urine, the purple matter (*ureoritrina*) being aug-

mented to the maximum. The latter, when precipitated from the urine, attaching itself to some of the insoluble salts, assumes the aspect of brick dust sediment.

*Successful Employment of Bromide of Potassium.*—The case is reported by Dr. Ricard in the *Union Médicale*.

E. C., æt. 12, of a nervous temperament, subject to frequent headaches, was seized the 2d of July, 1869, without discoverable cause, with tingling in the left arm and leg, impeding his movements of those limbs. The next day his parents noticed that their son was seized with unwonted stammering; three attacks of palpitation, followed by slight syncope, set in, in the course of the day; cramps sufficiently painful to wring cries from the patient were felt in the left arm and leg. The child entreated his mother to rub smartly those parts, and seemed to obtain some amelioration from the friction. These attacks, which at first showed themselves only three or four times a day, soon recurred with great frequency, being ultimately repeated five or six times daily, with constantly increasing intensity. The intellectual functions were not at all disturbed; and there was no fever. This sad condition continued without being met by any rational medication till the 19th of July, when Dr. R. was summoned. The Doctor had an opportunity of witnessing an attack during his visit. The flexor muscles of the affected limbs were the seat of violent contractions, alternating with disordered movements. There was much agitation and complaint of suffering. Friction at the painful points seemed to moderate the trouble, which lasted only a few minutes, and was soon followed by complete tranquillity.

The course of the symptoms not appearing connected with any congestive state of the great nervous centres, I thought them attributable to a purely functional lesion, and, as they presented the most striking analogy with chorea, to be properly ranked with the neuroses. This diagnosis necessarily led Dr. R., he says, to a treatment which was the logical result of it. He had several times had occasion to administer, and with success, the bromide of potassium in different diseases in which the nervous

erethisms predominated; and thinks the use of the medicament was favorable to recovery in this case. He prescribed a solution of 20 grammes (gramme=15.444 grains Troy) of the bromide salt in 300 grammes of distilled water. Two tablespoonfuls of the preparation were given the two first days, the dose being then gradually increased to four tablespoonfuls. The number of attacks diminished proportionally with the increase of the quantity administered, and on the fifth day all spasm had disappeared. The remedy was continued eight days more to prevent the return of the symptoms, which did not show themselves for a month. Dr. R. thinks it proper to mention that no other remedy was employed concurrently, and that therefore the credit of this prompt and remarkable cure belongs to the bromide of potassium.

*Chromidrosis.*—A detailed account of a case of this disease is given by Dr. Ferand in the *Union Médicale*. The heads of the case are these.

A youth of 16 was on the first of February withdrawn from college and taken home, where the reporter visited him the following day. He was of a nervous temperament, and of a constitution below the average in firmness, although he had never been sick. A pyretic affection was diagnosed, and for a few days the physician doubted between acute phthisis and typhoid fever. The patient had been much debilitated for a month previous. Had suffered loss of sleep and appetite. Febrile action appeared particularly in the evening, though irregularly. There was quite frequent cough without expectoration; slight epigastric sensibility; prostration of the mental and physical functions. Subsequently—it is asserted—the development of the affection was that of typhoid fever, without predominance of the symptoms in the direction of either of the visceral cavities, but with all the essential symptoms of the disease.

Convalescence, we are told, was complicated by intense "remittent fever;" pain and swelling of the liver; slight pleurisy on the right side; and on the same side a bulbo-pustular eruption, with severe pain; also great prostration.

These complications having disappeared,

and the patient being in full convalescence, the colored sweat made its appearance. One day while sponging the surface with a mixture of cologne and common water, he thought he noticed an abnormal color in the pubic region, near the right groin. The sponge removed a greyish-blue substance, which, though but slightly miscible with water, nevertheless colored that which had been used for washing. The next day the same phenomenon appeared more distinctly, and attention being called to it, the details were taken notice of. The patient found, at the left groin, and especially in the neighborhood of the pubes, a substance of a *greenish blue*, this time spread out like a coat of paint. By contact with the moistened sponge, this coating was detached, though not readily, and a sort of foam was produced. From the marked blue color it had while on the skin, it changed to a tint tending toward a green, and communicated that tint to the water used in washing. This appearance was attended with no pain, or normal sensation, and would not have been perceived if it had not been for the practice of washing which has been mentioned. His health notwithstanding continued to improve, and he was seen by his physician only at long intervals. He handed the latter a phial containing about 200 grammes of the lotion colored by the substance in question. A quite copious powdery or granular deposit occupied the bottom of the containing vessel, and was of the same color as the liquid. Under the microscope nothing was seen but amorphous corpuscles of homogeneous structure, not granular and of a lamellated appearance. M. Méhu, chief pharmacist to *Hôpital Necker*, made a chemical examination of the deposit, and discovered only that coloring matter analogous to indigo or *indican*, which is found in the urine accidentally or even physiologically (Schunck), also in the blood (Plater) and likewise in the sweat (Bizio)—the uroglau-cine of Heller, the cyanonrine of Bræonnot.

The seat of the secretion was adverted to as being singular, and as seeming to prove that though chromidrosis is more readily detected on uncovered portions of the body, it is possible for it to occur elsewhere.

We would add to the remarks of Dr. Fer-

rand here cited, that the fact of the subject of this secretion being of the male sex is worthy of note; as it has in the vast majority of instances been observed in females, whence its genuineness as a physiological product has been doubted, the supposition being that the coloring was artificial, and that the explanation of its occurrence was to be found in hysterical deception.

In the *Dublin Quarterly Journal of Medical Science* is a paper by Dr. Foot, entitled "Two Cases of Chromidrosis with Remarks." The monograph is an elaborate and exhaustive statement of what is known on the subject of the disease. We give some extracts.

"The first case—that of the black discoloration—occurred in a young lady of 16. About a fortnight before I first saw her (which was October 23d, 1867) she had caught cold and got a pain in her side and back; a week after this event a sooty looking stain made its appearance, first upon the inner border of the right lower eyelid and afterwards upon the left lower eyelid, so that the discoloration had existed for a week when it came under my observation. I found a diffused blackish-looking smut of the color of light Indian ink, or of ink and water, a greyish sootiness, upon the cutaneous surface of each lower eyelid, looking just as if the lids had been blackleaded; the lids could be partially cleaned of the discoloration by being gently rubbed with a soft handkerchief; the stuff could be quite removed by washing; but reappeared soon again; more or less of the blackness was transferred to any material pressed against the part, and there was a distinctly appreciable powder of the finest description on the parts. The sensibility of the eyelids was not much increased; they were more vascular than usual, and a tendency to perspire from the lower lids had been observed. The uterine functions were more than naturally active, the catamenia appearing more frequently and more profusely than they should. She had absolutely no appetite, was very easily fatigued, had a short occasional cough, and some pain referred to the left subscapular region, which, in the absence of any discoverable cause, was attributed to neuralgia; her complexion was sallow, and there were indications that the liver was not acting in a healthy manner. On one occasion, subsequent to the appearance of the discoloration, she had been 'hysterical, laughing and crying.' Beyond

these points there was no appreciable departure from health."

The subject of the second case was a married lady, "about 26 years of age, regular in all details of menstruation, of fair complexion, and striking beauty. Without any assignable reason, both lower eyelids became bluish, simultaneously, and to an equal extent; the discoloration was unattended by pain, and increased gradually in degree until the upper and lower eyelids of each eye became of an intense blue; the color was very persistent, and did not appear to be intermittent in its formation while the lady was under observation; it was a source of much annoyance, owing to the attention it attracted in the street and elsewhere. At the time this sketch was made the affection had existed for six months. Such are the particulars which I have received, and it is to be regretted that they are not more complete; but as the case has not been published, and as it contrasts strongly with the black form of the disease, I thought it might with advantage be alluded to on the present occasion.

"As the term chromidrosis, or chromhidrose is that generally used on the continent for this affection, I shall adopt it without at present discussing its suitability, or the other terms for which it has been substituted. The term chromidrosis is a general one, comprehending any discoloration of any part of the external skin, which is due to the exudation of a special pigment—black, brown, blue or yellow—provided that the discoloration be on the outer surface of the skin, susceptible of removal by friction, and of being reproduced after a variable interval of time. This definition is framed for the purpose of excluding from the category of chromidrosis all such subcutaneous discolorations as are obscured in Addison's disease, in jaundice, cyanosis, sunburn, the cutaneous pigmentations of the breasts and abdomen witnessed in pregnancy—the utero-ovarian melasma of Laycock—and the leaden hue which results from precipitation of metallic silver in the skin after protracted employment of the soluble salts of that metal; in none of these does the pigment appear on the free surface of the skin or become capable of removal by gentle friction."

Dr. Foot gives a table of thirty-eight cases of the disease on record. "The first points," he says, "which will arrest attention in looking through these thirty-eight cases is that the affection is much more frequently observed in women than in men; thirty-four times the disease has occurred

in women, four times in men, and that it is generally young women who are the subjects of it, the mean age of the females being about twenty-two, although the extreme ages range from 15 to 57. In twenty-nine cases ten were married and nineteen unmarried. In by far the greater number of cases the coloration appears on some part of the face, and in half the cases the discoloration was black or blackish. There is generally some disturbance of the uterine functions and a debilitated state of health antecedent to the appearance of the colored exudation. All ranks of life are liable to it.

"The fact of so many cases occurring in young women has unfortunately militated against the careful study of the disease, and certainly has greatly contributed to the disbelief of many in this affection. These young women, they say, are hysterical, they paint themselves, they put on lamp-black, graphite, indigo, black lead, to acquire an interesting appearance, to attract observation. There have been one or two notable instances of deception, cases in which coloring matter was put on the face, and imposture successfully kept up for a length of time; and these cases have done more to throw doubt on the existence of chromidrosis than a host of genuine cases have to establish it."

The fact that pretended cases of this disease have been shown to be fictitious does not prove that all alleged instances of it are deceptions. And as Dr. Foot says, there is hardly a known disease which has not been simulated.

"Marriage does not appear to have any effect upon the disease, as in one of de Méricourt's cases (*op. cit.* p. 52) the black coloration continued after the birth of several children, although during lactation it notably diminished. In a second case it persisted very intensely in spite of marriage, the birth of a child, and the appearance of perfect health; it persisted equally in a third case during pregnancy. Four cases have been observed in men; one was in a farm-steward, aged 47; a second in the captain of a French frigate, aged 48; a third in a gentleman of 46; a fourth in a naval lieutenant, aged 32. It will be easily seen that hysteria, at least as the term is generally understood, cannot be solely responsible for chromidrosis; cases of well-marked hysteria and of deranged uterine functions are common enough; cases of chromidrosis are rather rare. In a very large number of the cases the patients were married; in those married during its existence this event, so

often regarded as a panacea for hysteria, had no beneficial effect, nor had pregnancy, or the bearing of children. The affection was also seen in a lady who had ceased menstruating a year or two previously, and finally, in four men of middle age employed in active and responsible duties."

"The usual situation for the first appearance of chromidrosis is the lower eyelids; then in order of frequency follow the upper lids, the cheeks, forehead, sides of nose, whole face, sternal region, chest, abdomen, greater part of the front of the body, the back of the hands. The ears, at least their concave surface, have never been observed to be affected, nor has the posterior aspect of the trunk. In by far the greater number of cases, the discoloration commences on the lower eyelids, generally at their inner borders; when the four lids are affected, the two lower are much more colored than the two upper; the exudation is almost always symmetrical, though to this rule there are exceptions; the color is very liable to be intermittent in its appearance, and is liable to reappear after a long absence, and when it has been apparently cured; it generally returns after the reception of some mental or bodily shock, or some deterioration of health. The formation of the color is sometimes very rapid—it may be formed two or three, or five or six times in the twenty-four hours."

"The eyelids being the prime and principal seat of chromidrosis, it is not surprising that local symptoms often, though not always, prevail in them; they are frequently very sensitive, congested, hot, puffed, itchy, and, as might be expected, the nervous derangement or neurosis, which exists in the lids, is not strictly confined to these appendages, but extends further; lacrymation and spasmodic action of the orbicular muscle being not uncommon."

"From the chemical and microscopical character of the coloring matter in cases of chromidrosis there is very strong reason to believe that it is closely connected, if not identical, with the indigo compounds."

"It is well known to every one that indigo, as it exists originally in the sap of woad, is not blue but colorless, and that in the process of its manufacture into indigo-blue it changes from white to yellow, yellow to green, and green to blue; and there is another grade of oxidation by which blue indigo is transformed to red. Indican or colorless indigo is also found in the blood of man, and in the urine and blood of the ox (Carter; *Ed. Med. Jour.*, Aug., 1859; Watts, *Dict. of Chem.*, Vol. iii., p. 246,



1865). Indican may be detected in the urine by precipitating the urine with basic acetate of lead, collecting the precipitate which forms in the filtrate on the addition of ammonia, and decomposing it with cold dilute acids; the filtrate deposits first indigo-blue, then indirubin or indigo-brown, and afterwards other products of the decomposition of indican. The indican obtained from the urine appears perfectly similar to the indican obtained from the indigo-plant, and which is the mother-substance of indigo-pigment.

"There is nothing extraordinary in the discovery of a vegetable product in the animal body; the occurrence of indigo or of an indigo-producing substance in the secretions of men and animals is an example of the inter-dependence of vegetable and animal chemistry so frequently shown in the relationship or even identity of products formed in vegetable and animal organisms."

"A remarkable connection may be observed between the occurrence of chromidrosis and erysipelas of the face. In the two cases recorded by Dr. Neligan and Dr. Banks erysipelas of the face preceded the exudation of coloring matter; in Fauvel's it succeeded it; in Mr. Teevan's it occurred during the continuance of the chromidrosis. In almost all the other cases the appearance of the discoloration was preceded or attended with some one or more of such local symptoms as heat, congestion, prickling and tinglingsensations, puffiness, headache, hyperesthesia. These symptoms indicate a want of tone in the cutaneous vaso-motor nerves, a vaso-motor neurosis, such as induces the asthenic sweatings observed in debilitated constitutions."

"A combination of constitutional treatment with local application of astringent spray or lotion offers the greatest promise of success; and any therapeutical indication which a careful examination of the general health may suggest should be eagerly seized on, and be followed out with perseverance for a considerable time before the cure of the affection can be reasonably expected."

**THREE FORMS OF ALLEGED NEUROSIS.**—It may, perhaps, be interesting to note that the attention of medical readers has been called within a few months to three affections of the cutaneous surface, as traceable with more or less of plausibility to nervous lesion: viz., herpes zoster; unilateral sweating of the head; color-sweating—chromidrosis—of various parts of the body. In the language of debate the neuroses have the floor.

**BOSTON DISPENSARY.**—The following are the statistics of this institution for the year ending Sept. 30th, 1869. The number of new patients at the Central Office is 15,051, of which 10,423 are medical cases, and 4628 surgical, as follows:

MEDICAL.				
	Men.	Women.	Children.	Total.
1st quarter,	483	847	611	1971
2d "	659	1161	832	2655
3d "	630	1350	876	2856
4th "	616	1354	971	2941
Total,	2388	4715	3320	10,423

SURGICAL.				
	Men.	Women.	Children.	Total.
1st quarter,	347	328	362	1037
2d "	457	310	439	1206
3d "	404	348	446	1198
4th "	333	388	466	1187
Total,	1541	1374	1713	4628

The number of new patients in the Districts is as follows:—

	Men.	Women.	Children.	Total.
1st quarter,	387	747	1011	2145
2d "	434	965	1101	2500
3d "	314	721	889	1924
4th "	313	708	929	1950
Total,	1448	3141	3930	8519

RESULTS.				
Discharged, cured or relieved,	-	-	-	7908
Sent to Hospitals, or removed from Districts,	-	-	-	286
Died,	-	-	-	304
Under treatment,	-	-	-	99

Under treatment at last annual report, 8397  
78

Number of cases at Central Office, 8,519  
15,051

Total number at Central Office & in Districts, 23,570

PATIENTS, NEW AND OLD, AT CENTRAL OFFICE.				
	Medical.	Surgical.	Total.	
1st quarter,	5264	1707	6171	
2d "	5898	2030	7928	
3d "	6199	1838	8437	
4th "	5633	1674	7307	
Total,	22,994	7249	30,248	

Number of cases of midwifery,	-	-	101
Number of recipes during the year,	-	-	53,411
Number of recipes since July, 1856,	-	-	548,941
Number of patients since July, 1856,	-	-	257,400
Average daily attendance during the year,	-	-	98

#### SURGEONS.

Francis H. Brown, M.D. John Homans, M.D.  
Seth L. Sprague, M.D. J. Brackett Treadwell, M.D.

#### PHYSICIANS.

Hall Curtis, M.D. F. B. Greenough, M.D.  
J. McLean Hayward, M.D. Wm. F. Munroe, M.D.  
P. A. O'Connell, M.D. Charles E. Inghes, M.D.  
Charles B. Porter, M.D. Samuel G. Webber, M.D.  
S. W. Langmaid, M.D. John C. Warren, M.D.  
Frederic I. Knight, M.D. J. Franklin Appell, M.D.

For officers of Dearborn Branch, see Vol. III., p. 106, N. S.

#### DISTRICT PHYSICIANS.

No. 1.—Henry Tuck, M.D.  
No. 2.—John B. Fulton, M.D.  
No. 3.—David H. Hayden, M.D.  
No. 4.—Wm. H. Hastings, M.D.  
No. 5.—Robert Disbrow, M.D.  
No. 6.—Alfred L. Haskins, M.D.  
No. 7.—David F. Lincoln, M.D.  
No. 8.—Hugh Doherty, M.D.

A. K. Carruthers, Apothecary; John H. Abbott, Assistant Apothecary; Dennis Graham, Second Assistant Apothecary.

SAMUEL A. GREEN, M.D., Superintendent.

## Medical Miscellany.

**REGISTRATION OF NURSES.**—The difficulties of obtaining a nurse, in cases of sudden sickness, are well known to most families residing in Boston. In such emergencies, when the inconvenience and perplexity are most felt, it is often necessary to search for hours, and even days, for a nurse who may be ready to come, and living at the next door, and yet cannot be found, from the simple want of a proper system of registration. With a desire to obviate some of these inconveniences, and that the attempt may lead to the adoption of some more thorough system, a Registry has been opened at the room of the Ladies' Relief Agency, No. 37 Charity Building, Chardon St., where all persons who wish to procure situations as nurses for the sick, monthly and wet nurses, and night watchers, are invited to record their names and recommendations. Office open daily (excepting Sundays), from 10, A.M., till 2, P.M.

**References.**—Rev. E. M. P. Wells, D.D., at St. Stephen's House; Miss Annie S. Robbins, at House of Good Samaritan; D. Humphreys Storer, M.D., Tremont Street; Amos A. Lawrence, Esq., Longwood.

**THE Union Médicale** announces that Hebra and Sigmond, who have been for twenty years Professors *extraordinary* without remuneration, have just been named Professors in ordinary. The *Union* adds that this is a just but tardy recompense of their zeal.

**THE DECOLORIZATION OF TINCTURE OF IODINE.**—\* \* \* \* The ordinary soap liniment does not actually decolorize the iodine, yet it possesses the great advantage of enabling us to rub it freely into the skin without the characteristic color of iodine being imparted to it; and thus we can use iodine as an external application where the antipathies or caprice of patients would otherwise present a formidable barrier to its use, were it employed in the ordinary way. As a liniment, one part of tincture of iodine, one of glycerine, and two of soap liniment, may be used for a long time without producing much cutaneous irritation, or any characteristic decolorization. Stains caused by the accidental application of tincture of iodine may be at once removed by the use of soap liniment.—*California Medical Gazette.*

**THE SUBCUTANEOUS USE OF CHLOROFORM.**—In reference to the very interesting report on the new anæsthetic, chloral, which we publish this week, we would direct attention to the observation that when chloroform in a sufficient quantity is injected subcutaneously, it seems, like chloral, to produce a narcotism which lasts many hours, and does not appear to be succeeded by any stage of excitement analogous to that which follows the narcotism of chloroform inhalation. The observation, if confirmed, is of great interest, as it illustrates a law which has not, of late years at least, received a due amount of attention—that the physiological action of a substance may be modified by the mode in which it is introduced into the animal body.—*Lond. Med. Times and Gazette.*

**INMAN'S FORMULA FOR CASES OF PHTHISIS.**—Thomas Inman, of Liverpool (*The Med. Mirror*), states that his favorite formula for cases of phthisis, or general debility, is this:—Keep the stomach for food, the rectum for physic, and the skin for oil." It is a homely saying, but not the less true on that account.—*N. Y. Medical Record.*

**CHLOROFORM IN SYPHILITIC ULCERS.**—This treatment has been introduced by Dr. Llamal, physician-in-chief of cutaneous and venereal diseases at Presbourg, who affirms that it is less painful than other treatment, and cures the wound rapidly.—*Union Méd. de la Gironde.*

**GLASS NOT A CERTAIN INSULATOR.**—An electrical coil has lately been made in London which sends the lightning spark through five inches of solid glass.

**PRINCE NAPOLEON'S POMPEIIAN PALACE.**—on the avenue Montaigne, in Paris, is about to be purchased by the municipality of that city and opened as a scientific institute.

**DECLENSION OF THE CONSUMPTION OF TOBACCO.**—Tobacco manufacturers state that there is an annual decline in the consumption of fine-cut chewing tobacco.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

**ERRATA.**—In the article entitled "The Internal Use of Carbolic Acid," page 162, first column, twentieth line from the bottom, instead of "undisturbed" read *undissolved*. Second column, near the top, instead of as in the text, read "The interference is decided when one part in two hundred and forty is present; and the one eightieth part entirely prevents digestion."

**DIED.**—At Lowell, Oct. 16th, Kirk Henry Baneroff, M.D., aged 31 years.—At Athol Depot, Oct. 16th, James Coolidge, M.D., aged 38 years.

**DEATHS IN BOSTON** for the week ending October 16, 1866. Males, 53—Females, 53.—Accident, 4—disease of the bowels, 1—congestion of the brain, 4—disease of the brain, 4—bronchitis, 1—cancer, 3—cholera infantum, 6—cholera morbus, 1—consumption, 16—convulsions, 5—croup, 2—diarrhoea, 7—diphtheria, 3—dropsy, 2—dropsy of the brain, 3—drowned, 1—dysentery, 2—erysipelas, 1—scarlet fever, 3—typhoid fever, 3—infantile disease, 6—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 2—malformation, 1—marasmus, 2—old age, 6—paralysis, 2—premature birth, 1—pyæmia, 1—teething, 1—unknown, 4—whooping cough, 3.

Under 5 years of age, 46—between 5 and 20 years, 8—between 20 and 40 years, 19—between 40 and 60 years, 18—above 60 years, 15. Born in the United States, 76—Ireland, 21—other places, 6.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, OCTOBER 28, 1869.

[VOL. IV.—Nos. 15-16.]

## Original Communications.

### THREE CASES OF INFLAMMATION OF THE CÆCUM AND CURE OF ARTIFICIAL ANUS.

By WM. A. GILLESPIE, M.D., Louisa Court House, Va.

SEVERAL years ago a young physician, Dr. White, came to my office to get some purgative medicine, stating that he was very constipated. In a few days he sent a message to me to visit him. He complained of pain and soreness in the right iliac region, which upon examination I found to be tender, with a distinct boggy tumor, some three inches in diameter, dull on percussion. His bowels were constipated and he had some fever. I diagnosed inflammation of the cæcum (a very rare disease). General antiphlogistic treatment, purgatives, calomel and a blister were advised; but, notwithstanding treatment, general peritonitis ensued, with complete obstruction of the bowels, and he died in two or three days. *No post mortem.* Some time afterwards I was called in consultation to a Mr. A., fifteen miles from my residence, whom I found laboring under similar symptoms of a more chronic character; a distinct boggy tumor in the right iliac region, tender and painful, with constipated bowels. He was attended by a young physician, who stoutly and confidently contended that it was a case of hernia! I advised leeching, fomentations, blistering, calomel and purgatives—but meanwhile an abscess formed and discharged itself externally, and after lingering some weeks he recovered perfectly, and is now a healthy man, aged 70. The third case had a similar history; a painful chronic boggy tumor in the right iliac region, with constipation; was attended by a young physician (of more boldness than prudence) who plunged a lancet into the tumor, and the discharge was principally feces, which continued to flow for some weeks. The late Professor Chas. Bell Gibson was called to the case and pronounced it a hopeless case of artificial anus. Afterwards I was called, and after hearing the history of the case I inquired if

any feces passed the natural way, and on being answered in the affirmative I determined to close the external opening. With solid nitrate of silver I thoroughly cauterized the thickened, callous, fistulous opening of the artificial anus, then passed three needles deeply through the lips of the orifice, and closed it by wrapping silk ligatures over the needles, as in hare-lip cases. Some ten days afterwards I removed the needles, and found the fistulous opening thoroughly united, the feces having passed readily *per vias naturales*. He made a good, early and thorough recovery, and is alive and well now, after ten or twelve years from the time of the accident.

Such cases Dr. Symonds, in the Library of Practical Medicine, calls *peritonitis of the cæcum*. See also Copland's Medical Dictionary, Art. *Cæcum*.

### CAUTERIZATION OF THE LINING MEMBRANE OF THE UTERUS.

By WM. A. GILLESPIE, M.D., Louisa Court House, Va.

MUCH has been said about the difficulties and different plans of cauterizing the internal surface of the *cervix uteri* and of the body of the uterus, and of the dangers of injecting any liquid caustic preparation into it. I am therefore prepared to give a simple, easy and efficient plan for cauterizing the canal of the cervix, and even the cavity of the body of the uterus. I have practised it repeatedly in a large number of cases, with the happiest results.

Take an ordinary sponge tent and coat it with beeswax, and then roll it for some time with a knife in powdered nitrate of silver, which will sink into, and adhere to, the wax. Then through a suitable speculum carry the prepared tent through the cervix, and if desirable, to the fundus, and let it remain twenty-four hours. No remedy in my hands has done more good in as short a time, in chronic inflammation, engorgement, enlargement or ulceration of the os and *cervix uteri*, and I have never known any unpleasant results from it.

September 1, 1869.

[WHOLE No. 2176-77.]

VOL. IV.—Nos. 15-16

## Selected Papers.

### NORTHERS, OR NORTHWEST WINDS OF CALIFORNIA.

Read before the Sacramento Society for Medical Improvement, by H. W. HARKNESS, M.D.

IN selecting the subject for this paper I have been actuated by a single motive, viz. :—an earnest wish to call the attention of the members of this Society to a more close and careful observation of the phenomena co-existing with certain air currents this side of the Sierras, and that the medical men of this city may in the future record such incidents as may come within the sphere of their observation, until such facts have accumulated to so great an extent that they may be classified and carefully analyzed, and, so to speak, crystallized into some great scientific truth, which shall prove of benefit to ourselves and the dwellers upon this coast.

I dare not hope that such observations may to any great extent change our ideas either as to the causation or treatment of disease. Yet there is manifestly a strong inclination on the part of medical men of the present day to adopt new theories pertaining to the etiology of disease. As proof of this assertion, amongst the many instances, I will cite but one, viz. :—the theory of "Organic Entities," by which Dr. Salisbury has apparently succeeded (with the support and sympathy of many, if not most of our profession) in reconstructing our Pathology upon an entirely false basis.

In the present paper I propose to call your attention to some of the facts connected with the northwesterly winds, as exhibited at intervals during the summer months.

All the members present are familiar with many disagreeable facts connected with this pernicious air current, and you are also doubtless aware of the fact that nearly all of the unpleasant consequences resulting are in some way owing to a disturbance of the atmospheric electrical currents.

I propose, in the first place, to point out the manner in which this disturbance in the electrical currents is effected, and, secondly, to indicate some of its effects upon animal and vegetable organisms.

M. Quetelet, in his account of his electrical observations at Brussels, says that, were it not for the existence of other bodies in celestial space, the terrestrial atmosphere would scarcely experience any electrical

changes. He further tells us that the sun must be regarded as the chief exciting and disturbing cause. He regards our atmosphere as divided into two layers; the upper one\* as nearly immovable in all its parts, the lower one constantly traversed and stirred up by winds.

The upper layer he considers is also divided into two portions; the one, negative, equilibrates the positive electricity of the sun and of the surrounding space; and the other, positive, acts through the lower stratum of air, and equilibrates the negative electricity of the earth.

The positive electricity of the upper regions of the atmosphere is kept apart by the extreme dryness which must prevail there.

In the lower stratum absolute dryness does not exist. It is more or less moist constantly, and traversed, although with considerable difficulty, by the positive electricity which can at times unite with the opposite electricity of the earth; but these never exist in intimate connection.

The action is like that of two conductors charged with opposite electricities and placed at a distance—the opposite fluids tend to unite through the more or less moist air that is interposed, but their charges remain the same.

If the losses are constantly renewed, the positive fluid of the upper layer gives rise to all the electrical phenomena that we observe upon our globe.

Being partially retained by the dryness and relative immobility of the stratum in which it finds itself, it operates through the lower stratum, which is always agitated, and always more or less humid, and partially paralyzes the electricity indicated by our instruments on the surface of the earth.

Admitting the correctness of M. Quetelet's theory (and I have no reason for doubting it), we find that the upper stratum of the atmosphere is too remote from the earth's surface to be influenced by its diurnal motion, and too light and attenuated to contain any moisture, and, like the depths of the ocean, is in a state of constant repose. In this condition it becomes a vast reservoir for the electric fluid, which is imparted but slowly to the more humid atmosphere beneath. In the lower stratum the conditions are entirely the reverse. During the prevalence of the south winds the currents are variable and at all times contain a large amount of moisture, the particles of which serve as conductors to and

\* Wood-cut omitted.

from the earth, thus preserving the equilibrium between the positive electricity of the atmosphere and negative of the earth, no single body, unless insulated, receiving more than its healthful share, producing in the animal creation a condition at once exhilarating and beneficent.

While it is true that electricity exists in every substance in nature, yet it is not evident to our senses until its equilibrium has been disturbed.

During the prevalence of our north-west-erly winds we have reason to believe that there are seldom or never counter currents in the atmosphere. In making this assertion, we are sustained by the fact that at such periods during the summer months no clouds are observable, and furthermore, there is no rainfall upon the most elevated portions of the Sierras.

As this air current is perfectly dry at the earth's surface, as well as at the highest altitudes upon which we are enabled to make observations, together with the absence of clouds or rain, as before stated, we may infer that this excessive dryness extends to the upper stratum. At such periods there must exist a homogeneity in the electrical conditions of the atmosphere in all that space extending from the earth's surface to, and including a large portion of, the upper air stratum.

In this condition we have the earth beneath our feet charged with negative fluid, whilst we are bathed in a sea of positive fluid, extending nearly to the outer verge of the atmosphere.

Now, when we take into consideration the fact that this atmosphere, during the summer months, at such periods, is almost absolutely destitute of moisture, and therefore the interchange of electrical currents is feebly maintained, it is easy to perceive that disagreeable results must follow, especially should the wind continue from the same quarter for eight or ten days, as has sometimes occurred.

The wind generally, during the daytime, moves with considerable velocity, sometimes almost amounting to a gale, carrying with it, no doubt, the electric fluid.

All objects, both animate and inanimate, are affected by this condition in the following manner:—

As each particle of air impinges against the body, it imparts a portion of its positive electric fluid. Such bodies, in the absence of moisture, become the only ready means of communication between the earth and the atmospheric currents (lightning conductors, so to speak) for the time being.

For proof that this theory is correct, we need but to place an object, properly insulated, in a position to receive the full force of such winds. We soon find it charged with electric fluid. As an example, a cook in the neighborhood of this city, on putting his hand on the stove, was nearly knocked senseless by an electric shock, and refused to touch the stove for the remainder of the day. In this instance the stove rested upon vitrified bricks, and the north wind had charged it over night.

In the animal not insulated there must be a constant change of electric condition—now positive, then negative—as the earth or atmospheric current predominates; never, however, in a state of exact equilibrium, the nervous system being affected to some extent in the same manner as when one receives a shock from an electro-magnetic battery.

The visible signs of this disturbance are marked and peculiar. Healthy and strong individuals feel an inconvenience, an agitation, a heaviness difficult to express; the muscular system is more sluggish; individuals afflicted with rheumatism feel their pains renewed; neuralgias increase in intensity, or their paroxysms re-appear; men are cross-grained and quarrelsome, fights are of frequent occurrence, and our landlords are seldom found in their usually amiable mood. In general our patients afflicted with chronic or acute affections feel an aggravation of the principal symptoms; they are more fatigued, more agitated, and their febrile state is increased, while, without being able to give any good reason for it, they are often gloomy and despondent. Even domestic animals seem to suffer from the same pestilential influence; our horses are irritable and restless, running away if there is the least opportunity.

In a pathological point of view, the chief disturbances occur in the cutaneous surface, and in those organs in direct sympathy with it. The skin is dry and rough to the touch, yet the cutaneous transpiration is equal to if not in excess of its normal quantity, as we find the urinary secretion contains an excess of solid ingredients, and is diminished in quantity. There is no difficulty in accounting for the dry appearance of the skin while the fluid is being so rapidly eliminated, as it is immediately absorbed by the dry atmosphere surrounding it. But how is it that, with a normal or even excessive transpiration, there is a notably diminished cutaneous circulation? We have present one of the principal conditions necessary to a determination of blood to the surface, viz.,

external heat. Then why the constant palor of the surface? Is it not probably, nay, almost to a certainty, owing to the constant electrical irritation of the terminal nerve plexuses of the skin? One of the immediate results of this condition of the skin is observed in the imperfect arterialization of the blood, as proved by a torpidity of the veins, a coldness and lack of sensation in the extremities, and a somewhat hurried and labored respiration. The functions of the brain are also disturbed by the same morbid influence, resulting in slight headaches and drowsiness, with marked disinclination for either mental or physical exertion.

Owing to this condition of the blood, as might be readily inferred, the portal circulation is deranged to a very considerable extent, resulting in hepatic engorgement, with its attendant evils; and, indeed, all the organs of the body suffer either directly or sympathetically from the effects of this, the most noxious of all air currents to be encountered upon this portion of the American continent.

It was my intention, when commencing this paper, to point out some of the phenomena observable in plants, to prove that not only the animal, but also the vegetable kingdom, suffers from the same influences, and to introduce some facts in relation to the growth and development of plants, which, in my estimation, would go far to prove the correctness of the assertion. But I have already exceeded the proper limits of this paper, and shall postpone the subject until some future period.—*Pacific Med. and Surg. Journal.*

## Reports of Medical Societies.

### MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.

THE semi-annual meeting was held at Cambridge, October 13th, Prof. Jeffries Wyman in the chair.

Proofs of the revised by-laws, with a list of past and present members, were presented.

Dr. Robinson, in behalf of the committee chosen to confer with the County Commissioners with reference to settlement of the question of fees for autopsies made at the instance of a coroner, reported that the commissioners desire to have some definite concerted action among the several societies in the county, before taking decided steps in the matter. After some discussion, the Secretary was authorized to communi-

cate with the other societies, and request cooperation.

Prof. Wyman showed a number of specimens of Indian bones from Florida and Kentucky, bearing more or less evidence of inflammatory action, closely simulating, in some, the results of syphilitic periostitis. If it were this, it would settle the question of the cis-atlantic origin of syphilis.

Prof. Wyman also showed a method of demonstrating ciliary motion. In the human body, vibratory cilia are confined to mucous surfaces, and their importance is most evident in the respiratory passages. Acting from within outward, they transfer the accumulating mucus from the smaller tubes of the lungs to the glottis. Their action in removing dust has been demonstrated by sprinkling charcoal dust upon mucous surfaces. The cilia are probably useful, too, in keeping up an outward current of air, thus changing the air in the tubes and air-cells. This is also suggested by Dalton.

Dr. Wyman removed a piece of the gill from a common fresh-water mussel, and spread it upon a smooth board, previously moistened. Upon the surface of the gill was placed a piece of card, bearing a perpendicular bristle, surmounted by a pellet of cotton, to make it more conspicuous. A stationary index marked the original position of the card, which in a few minutes traversed half the length of the gill. If the gill be placed upon glass, the apparent motion of the card is less rapid, owing to the motion of the gill in the contrary direction, which shows that the cilia act upon both surfaces.

A case of incontinence of urine after childbirth was reported, and one of irritable bladder, which elicited some discussion.

Dr. Holmes introduced the subject of laceration of perineum, considering it an infrequent occurrence, with proper care. This called out the experience of several members. The evidence went to show that it is a very frequent accident, and one of very slight importance unless extending through the sphincter ani.

Dr. Driver, of Cambridge, mentioned a rupture of a fold of the labia minora, or the internal fourchette, which is not infrequent, and often overlooked. He thought that the slight bi-lateral incision of the perineum sometimes practised might be of use in cases which threaten rupture of the perineum.

Dr. Clarke, of Cambridgeport, mentioned a case in which severe peritonitis followed rupture into the rectum.

## Bibliographical Notices.

*Circular No. 1. A Report on Epidemic Cholera and Yellow Fever in the Army of the United States during the Year 1867.* War Department. Surgeon-General's Office, Washington, June 10, 1868. Government Printing Office. 4to. Pp. 156.

A REPORT, like the above, upon the occurrence of a disease which, as in the case of cholera—which we propose first to consider—is quite as civil as military in its invasions, is, however accurate, at best partial. It does not, from its own point of view, warrant the drawing of any positive inferences upon obscure questions like those which come under the head of causation, whatever the advantage to observation of occasional complete isolation of bodies of men and exclusive methods of communication between them. Without care, these very circumstances may lead to false conclusions. In case, for instance, the disease were propagated by atmospheric agency, exclusive aggregations of men and lines of travel and communication would afford a very meagre photograph of a cause which might be as wide as the whole country and at the same time very irregular in its distribution. The progress of such a cause would require for its representation a plate everywhere sensitized by a human element, otherwise there would result a picture of the mere distribution of men in the color of a disease.

This caveat is entered in consequence of what seems here and there in the Report to be a too ready assumption of an easy theory to account for the appearance of the epidemic at various posts. Certain it is that while the portability of the disease by human agency seems best to explain certain cases, in others such kind of evidence is entirely wanting; in a third intermediate class it is of such a slight character—as, for example, the conveyal of a single dead body in the vicinity of a camp—as to imply a power of infection which is not substantiated by other experience with the disease—as, for further example, the frequent immunity of attendants.

“In view of the possible prevalence of cholera during the approaching summer,” the Surgeon-General issued to the medical officers of the army a circular (No. 3), dated April 20th, 1867, enjoining, in case of the appearance of the disease, the enforcement of quarantine and the employment of the strictest hygienic measures, and requiring

accurate reports of cases, with successful methods of treatment and results of autopsies.

The cholera came, and numerous reports from various quarters of the United States, principally the South-west and West, were sent from time to time—from June to December—to the Surgeon-General's office. These communications (Appendix I., Cholera: B—Extracts from Official Reports) form the major portion of the Report on Epidemic Cholera. They are preceded by a synoptical account drawn from them, in accordance with instructions from the Surgeon-General, by J. J. Woodward, Brevet Lieutenant-Colonel and Assistant Surgeon U.S.A. There are, besides, complete statistical tables, prepared with considerable care, of the disease at various posts, concluding with a table of the sums total. Dr. Woodward says:—

“It is well known that cholera prevailed extensively in the army during 1866, causing over 1,200 deaths among officers and men. Circular No. 5, of 1867, giving a detailed account of the epidemic of 1866, was sent to each medical officer, in anticipation of the possible return of the disease in 1867. It will be seen, by consulting that document, that cholera spread over the whole country during 1866, extending as far westward as Forts Leavenworth, Riley and Gibson; and in the southwest as far as Texas. In its progress, the disease followed the lines of travel rather than any general westward course, and, in the case of the army, it especially followed the movements of bodies of recruits, which were the most important movements from infected points during the year. The compiler of Circular No. 5 drew hence an argument in favor of quarantine, and the Surgeon-General, in Circular No. 3, instructed medical officers to endeavor, as far as possible, to protect any threatened command by a proper quarantine. The measures thus adopted, in conjunction with the hygienic precautions in the same circular, undoubtedly saved many lives in the army, for the total number of deaths from cholera during 1867 was but 230, and it cannot be claimed that the disease in itself was less virulent during 1867, for the proportion of deaths to the total number of cases was 1 death to 2.19 cases, while during 1866 it was 1 to 2.22.”

“In a general way, it may here be said that the experience of the army during 1867 confirms the views in favor of quarantine formed during 1866, and especially confirms the opinion with regard to the

danger of distributing recruits or other bodies of troops from an infected point to other garrisons. An additional point, however, is also suggested by the experience of 1867, namely: the possibility of cholera reappearing on the following year at places visited by it during an epidemic, if the most stringent hygienic precautions are not adopted."

The general summary "shows that the total number of cases among the white troops during the year was 317, of whom 139 died; among the colored troops 187 cases and 91 deaths. The mortality was, therefore, 1 to every 2.28 cases for white; 1 to every 2.05 for colored troops. A comparison with the data of Circular No. 5 shows that the mortality during 1866 was, 1 to every 2.5 cases for white; 1 to every 1.9 cases for colored troops. The proportion of deaths to cases during 1867 was, therefore, rather larger for white and rather smaller for colored troops than during 1866."

Turning now to the "Official Reports," as the centripetal communications are called, we find considerable reading matter concerning the details of the epidemic. The disease was well marked, and doubtful cases have not been reported as cholera. The statistical tables include the cases of cholera morbus, acute diarrhoea, chronic diarrhoea, acute dysentery and chronic dysentery accompanying the epidemic.

There is no doubt that the most strenuous efforts were made, both in the way of hygienic precaution and persevering treatment. Under the head of the former may be enumerated—the choice, where practicable, of high and dry localities for camps; the strictest cleanliness in every possible respect; the free use of "disinfectants" (chloride of lime, sulphate of iron, &c.); caution in regard to food and drink—matters in which caution had sometimes of necessity very limited field for its exercise; the purification of the drinking water by boiling or by the use of alum or permanganate of potassa, to clear it of organic impurities; the avoidance of fatigue; encouraging the men in various ways, particularly by marching or change of camp, this being also a means of avoiding accumulated filth. In reading over these various and interesting accounts, one cannot avoid the conclusion that such means as have been described were the principal weapons with which the disease was successfully fought. Quarantine, as far as it prevented the importation into camp of premature specimens of a dreaded disease, may have had

a good moral effect upon the men for the time being; but it must have been more than cancelled by the dread of contagion which it excites—a dread which cost many a poor fellow his life. Oftentimes it was impracticable; sometimes when apparently successful its advantage would be entirely destroyed by a slight accident—in other words, the epidemic marched on.

Treatment directed to the patient was always active, and as various as unsatisfactory. That the patients would have done better if let alone, is not proved. That no one remedy was trustworthy, is certain. The principal articles and means used were: chloroform, brandy, quinia, opium, morphia, atropia, strychnia (the last three sometimes hypodermically), capsicum, tannin, acetate of lead, calomel, blue mass, rhubarb, saline injections, diuretics, changes of diet; externally, sinapisms, turpentine, frictions, abdominal compression; ice for drink in preference to water, the latter often causing vomiting, the former being frequently very well borne. These remedies were used singly and in a variety of combinations, and all have failed. Calomel has the largest number of advocates; chloroform frequently relieved the vomiting and diarrhoea. Hypodermic injections of morphia sometimes relieved the cramps; the hypodermic injection of atropia (gr.  $\frac{3}{16}$ — $\frac{1}{8}$ ), combined with saline injections, were used in one or two cases, which got well. "Squibb's mixture," writes Joseph B. Brown, Surgeon and Brevet Brigadier General U.S.A., in treating of the disease at Depot Hospital, Fort Columbus, N. Y. Harbor, "we have found develops dysentery, though for the moral effect in a frightened subject, nothing can be better than a single dose of Squibb's mixture, which the panic stricken patient knows is taking hold of his complaint, for he can feel it." Dr. Brown advocates the use of thirty grains of dry calomel placed upon the tongue, "which is always sufficiently moist to enable the patient to swallow it without difficulty. If one dose does not stop the vomiting, it is to be repeated within a few minutes. The next dose is exhibited in thirty or forty minutes, and within the succeeding two or three hours one or two similar doses should be given. No other remedies are to be used, except frictions to the cramped limbs, or firm grasping by the nurse's hands of the contracted muscles. Mustard paste, as soon as the struggles of the patient will allow it to remain in place, is also locally applied. Under the sedative powers of the calomel the patient soon becomes quiet, complaining of nothing but



thirst. Small pieces of ice relieve this thirst as well as pints of water, and I have also invariably found that free draughts of water renew the whole train of symptoms; in fact, occasion a complete relapse of vomiting and purging, even in a convalescent. After the patient is quiet, all remedies are suspended; he is occasionally supplied with a morsel of ice, cheering words are addressed to him, and, sooner or later, in more than two thirds of the cases treated here, reaction commences and progresses, if the patient were young and vigorous before the attack, to convalescence and recovery. The most intractable sequelæ we have had to contend with have been the effects of uræmic poisoning and dysentery. Autopsies have been made here, by Assist. Surgeon W. C. Minor, of several fatal cases of dysentery following recovery from cholera, the invariable lesion appearing to be active inflammation and swelling of the solitary and agminated glands of the ilium, with great injection of the points of the solitary glands."

We quote once more from Dr. Woodward a paragraph from which each reader may form his own opinion as to the mildness of the disease or the efficiency of remedies.

"The extreme mildness of the cases among these recruits [at Galveston, Texas] cannot escape attention; there were among them, in all, sixty-three cases and but nine deaths. This happy result, which is attributed, by the medical officers at Galveston, to the use of tannin in large doses, was observed also at Hempstead, where reliance appears to have been placed on camphor and opium pills; and at Onion Creek, where calomel was employed in large doses."

The report on yellow fever is quite as interesting as the preceding. The official reports are numerous and full, and the tabular statements even more complete. Dr. Woodward says, in his synopsis:—

"The reports indicate clearly two foreign sources from which the disease was imported into the United States last year—Vera Cruz, Mexico; and Havana, Cuba. From Mexico it was brought to Indianola, and thence to other points in Texas. At all other stations it seems to have been brought directly or indirectly from Havana; and it is worthy of remark that the cases here indicated as of Mexican origin were more fatal than those of Cuban origin, two out of every five cases of the former dying, while the mortality of the latter was but two out of seven. \* \* \* \* The fever was first introduced at New Orleans from Havana."

The disease spread from the gulf ports to various points inland, and Dr. Woodward says:—

"The more thoroughly the facts connected with the spread of yellow fever in the army during 1867 are known, the more strongly they appear to favor the theory of the exotic origin of epidemic yellow fever in the United States."

For the details of the epidemic, more especially the manner of its origin, its spread and its decline in New Orleans and other considerable cities, where the strictly military aspect is departed from and the history becomes general and complete, the reader is referred directly to the full and very interesting letters contained in the Report.

It may be stated here that the evidence in favor of the transmissibility or portability of the cause of the disease is much more direct and satisfactory than in the case of cholera, and that the relative values of hygiene and quarantine are reversed in the two cases. Prophylaxis by the administration of white mustard seed was attempted at Brenham, Texas, and with apparent result, for the troops, though encamped in the midst of an infected people, almost wholly escaped. However, no other trials of the article are on record in this report.

Very careful nursing was the *sine quâ non* in treatment in this epidemic. Nourishing enemata were safer than ingesta by the mouth, on account of the inefficient and irritable condition of the stomach. A cathartic (calomel, castor oil or both) was frequently administered at the outset, and this was in many cases followed by repeated doses of quinine. The early production of diaphoresis was considered important. Stomachic sedatives were administered, and saline diuretics were generally given to combat the occasional and serious complication of suppression of urine. Food of any kind in large quantity and stimulants were generally avoided until the establishment of convalescence.

Medical officers exhibited praiseworthy devotion to their arduous duties, and not infrequently fell victims to the prevailing disease, of which ten died and twenty-one recovered.

"A numerical summary" of the facts, in the language of Dr. Woodward, shows that there were 1,349 cases and 428 deaths of white, 171 cases and 25 deaths of colored troops, including the cases in June; the mortality being 317 deaths per thousand cases, or one death to every 3.15 cases for the white; 146 deaths per thousand cases, or one death to every 6.84 cases for the

colored troops. The mortality for the whole number, including both white and colored, was 298 per thousand, or one death to 3.36 cases.

"It will be observed, on comparing the ratios above given, that the number of cases and the ratio of deaths to cases among the colored troops is considerably smaller than among the white. Since, however, the whole number of colored troops exposed was much smaller than that of the white, the comparison will be most fairly made if we take the figures for New Orleans, where white and colored appear to have been exposed. Here it will be clearly seen that the proportion of cases and deaths to strength, and also of deaths to cases, is much greater among the white troops. Of these there were 866 cases and 256 deaths per thousand average mean strength for the six months [from June to December], while of the colored troops, for the same time, the ratio was but 521 cases and 73 deaths per thousand of strength. The relation between cases and deaths was as follows:—For white troops, 296 deaths per thousand cases, or one death to every 3.38 cases; for colored troops, 141 deaths per thousand cases, or one death to every 7 cases."

c. w. s.

## Hospital Reports.

Three Cases occurring in Service of Dr. THAXTER. Reported by N. P. QUINT, House-surgeon.

**CASE I.—Puncture of Bladder through Rectum; Recovery.**—W. G., painter, aged 29, entered hospital August 25th, with following history. Seven years ago he was troubled for a month with chordee which attended every erection, and which was unaccompanied by any running, but was attributed by his physician to extraordinary efforts just after patient's marriage. States that he has never had any venereal disease. Since date mentioned, has passed his urine in a small stream, often twisted and forked, so that it requires five or ten minutes for him to completely empty bladder. Has at times been troubled with frequent micturition. Has had two attacks of retention previous to present one, which were relieved, one by spir. ætheris nit., and other by use of catheter. Present attack has continued for eighteen hours, and can be ascribed to no particular exciting cause. Previous to entrance to hospital patient states that repeated attempts were made

by physicians to introduce catheter; so that urethra became exceedingly tender and irritable, and further efforts were desisted from. Bladder appeared as a large oblong tumor, of perfect outline, and extending up nearly to umbilicus. Warm bath and laudanum injections were employed soon after patient reached hospital, but without avail.

**Operation.**—Etherized. Urethra was explored by a capillary bougie, which it was impossible to pass into bladder. Catheters of various sizes were employed, and with these a false passage was discovered. It was finally decided to puncture bladder through the rectum, which was accordingly done, and about 3xx. urine evacuated. Bladder seemed to be removed some distance from perineum, so that most of the canula passed within rectum, and flange pressed up quite close to the anus. It was secured in position by means of tapes, and patient put to bed. Warm fomentations over hypogastrium were ordered. Evening.—Patient very comfortable, requiring no opiates. On next day there was some tenderness over bladder. Urine flowed freely through canula. On second day, after operation, patient was found to pass urine per urethram, and canula was accordingly removed. On introducing a bougie, a stricture of urethra at membranous portion, with false passages, was discovered. Patient was now able to pass his urine in as large a stream as ever, but was retained in hospital in consequence of an attack of vomiting and diarrhoea, which soon subsided. On seventh day after the operation he was discharged from the hospital well.

**CASE II.—Internal Hemorrhoids; Application of Nitric Acid; Recovery.**—J. S., æt. 52, shoemaker, states that he has been troubled with piles for seven years, and of late has had frequent attacks of hæmorrhage. During the past few days these have taken place after every defecation, so that he enters hospital in an extremely anemic condition. A dose of ol. ricini was given, and afterwards an enema was administered. On next day patient was etherized, and interior of rectum was exposed by means of an anal speculum. The mucous membrane was found to be raised in ridges and somewhat hypertrophied. Nitric acid was freely applied. Considerable hæmorrhage followed its use. Two hours afterwards patient had recovered from effects of the ether, but was in a state of great prostration, with severe shivering. Brandy, with heaters and blankets, served to rouse his feeble circulation. In the evening, he complained but little of pain. On following day, pa-

tient was ordered ferri mur. tinc. gtts. xl. ter die. Also a bottle of ale. Two days after the operation patient had a dejection, and evacuated about 3ii. blood. From this date onward he had a natural action of the bowels every other day, unattended by hæmorrhage or much pain. Ferri mur. tinct. was well borne by patient, and dose was increased to gtts. l. ter die. During treatment, patient required no opiates. He was advised to go into the country, to continue with ferri mur. tinc., and was accordingly discharged from hospital much improved. Two weeks subsequently he was seen, when he appeared much less anemic, and stated that he was entirely free of all his old symptoms.

CASE III.—*Ulceration of Rectum and External Hæmorrhoids; Application of Nit. Ac.; Recovery.*—L. S., æt. 44, housekeeper, enters hospital with following history:—Four weeks before coming to the hospital had a hæmorrhage from rectum after defecation, followed in a few days by pain and burning within the anus. Has had two attacks of bleeding since, of what extent cannot be ascertained. States that she has never had any symptoms of disease in this region previous to time referred to. Two days after coming to hospital patient was etherized, and on examination two flabby external piles were discovered. Within the anus an ulceration, one half inch in diameter, existed on posterior aspect of rectum. To this nitric acid was freely applied. The larger of the two piles was then snipped off with scissors. Considerable hæmorrhage ensued, which was restrained with ice. Evening.—Not much pain. Ice bag to anus. On the following day, there was present a burning sensation in the rectum. The wound made by the removal of the pile appears to have become obliterated. Bowels soon became open daily, and defecation was unattended by pain. Occasionally a very little blood would be passed with the feces. Patient continued to improve, and her recovery was only postponed a few days by an attack of diarrhœa, which soon yielded to proper treatment. On the nineteenth day after operation patient was discharged from hospital well.

THE MANAGEMENT OF PHTHISIS.—A writer in the *British Med. Journal* says, that the method of treating phthisis by *cod-liver oil and ether* is well spoken of in Vienna; and he has seen several patients who are gaining weight rapidly under it, and notably one who has gained seven pounds in twenty-three days.—*N. Y. Medical Record.*

VOL. IV.—Nos. 15-16A

## Medical and Surgical Journal.

BOSTON: THURSDAY, OCTOBER 28, 1869.

### TRANSLATIONS FROM THE ARCHIVES DE PHYSIOLOGIE.

THE following case, contributed to the *Archives de Physiologie, &c.* (of Prof. Brown-Séquard and others), by Dr. Charrier, we translate as being interesting physiologically, as well as in point of diagnosis. It contrasts well with cases where certain portions of the brain have shown great tolerance of extensive hæmorrhagic or traumatic lesion.

*Hæmorrhage into the Medulla Oblongata; Sudden Death the Twelfth Day after Delivery; Autopsy.*—P. entered the clinical lying-in ward, with slight indications of commencing labor, the second of April, 1857. I saw her at the evening visit, and made the following notes. She is a seamstress, aged 25, and in her second pregnancy. Her first confinement was quite favorable. Her child is living and is three years old. She has never been ill, except for nervous attacks and headaches, during the present pregnancy. Her mother is also very nervous, and has frequent headaches. Her father has had two attacks of rheumatism, and is living at the age of 65.

On digital examination, the vertex was found presenting in the first position, the child being very active. Labor terminated naturally on April 3d, at twenty minutes past ten in the morning. At five o'clock in the evening of the same day, there was an attack of eclampsia, entirely without warning, and while a large clot was being expelled. The attack lasted one minute and twenty-five seconds—the coma and stertor from three to four minutes. The urine was slightly albuminous. She recovered consciousness. No treatment. Seeing her again at 9½, P.M., I found that she had not had any fresh attack, and that she was sleeping quietly. During the next two days her health was perfect; the milk made its appearance without fever, and the infant took the breast. The patient got up the tenth day. On the twelfth day, at the evening visit, she answered my questions natu-

rally, and appeared bright and cheerful. All of a sudden, however, she uttered a cry, fell back upon her pillow, and was dead without any convulsive movement. Her death came like a thunderbolt.

In presence of a death so rapid—so instantaneous—I diagnosticated either hæmorrhage of the superior portion of the medulla oblongata behind the corpora olivaria, and between the corpora restiformia, on a line with the decussation of the pyramids—that is, at the spot which is considered the vital centre (*nœud*); or else cerebral hæmorrhage spread out in a layer of considerable extent beneath the meninges and on the surface of the hemispheres. But, death had taken place before my eyes with such suddenness that I am inclined to the former supposition.

In rupture of the heart, or in case of aneurism, death is not so lightning-like—so to speak. The agony lasts as much as two or three minutes, and epigastric distress arising from dyspnœa is manifested. It was my opinion, then, that the cause of the fatal event had its seat in the encephalon near its union with the spinal marrow. I had seen experiments on chickens, in which they were killed by a small and very sharp knife thrust into the base of the cranium, and their death was instantaneous, without convulsion. I inclined, therefore, to the inference of a similar lesion in the case of my patient. An autopsy was made, and showed the correctness of my deductions.

*Autopsy.*—The head was opened, and the entire medulla oblongata exposed, when no lesion appeared. But, the medulla oblongata being cut into, and its middle and anterior furrows separated with the handle of the scalpel, a clot was found 44 millimetres long, 8 millimetres broad, and 5 millimetres thick in its antero-posterior diameter. All the other organs were sound. Nothing in the lateral ventricles; nothing in the *septum lucidum*; nothing in the meninges; both white substance and gray normal. The thoracic and abdominal viscera presented no abnormality. The clot, of the color of currant-jelly, began at the upper part of the corpora olivaria and descended for a distance of 44 millimetres into what M.

Foville calls the central canal of the medulla oblongata, and stopped at the decussation of the pyramids. The blood probably proceeded from a small medullary artery. On washing the specimen in water, there was seen a slender prolongation of the clot, which buried itself in the left anterior pyramid.

*Cause of the Ecchymosis of the Pericranium in Apoplexy.*—We obtain also from the *Archives de Physiologie* the introductory portion of an article by M. Lepine on the subject of the above caption.

The numerous ecchymoses which are often observed in the loose cellular tissue of the pericranium, in the temporal muscle, and even on the inner surface of the integuments of the head and neck, in persons who have died from a recent attack of sanguineous apoplexy, have till latterly been considered as a phenomenon of the same order with the cerebral hæmorrhage itself. The latter being generally explained by an active fluxion toward the head, it was an accepted view that the production of these ecchymoses was due to the same cause. They were even expressly appealed to as “attesting the energy with which the blood is determined toward the head.” (Article *Apoplexie*, du *Compendium*, i. p. 242.) But the discovery of the part played by miliary aneurisms naturally led MM. Charcot and Bouchard to place a lower value on “the fluxion” than is generally attributed to it. In the presence of a vascular change so palpable, it was legitimate to resist a hypothesis that was without proof.

The production of the ecchymoses was then up for explanation; and M. Charcot was induced by the examination of the cases which came under his observation to assign the lesion an origin quite different from the fluxion. M. Charcot remarked that they had a definite situation; that they were always, or for the most part, on the side opposite to that of the apoplectic effusion; also that generally the diffused redness which accompanies them, is confined to the side on which they exist; that the median line precisely limits their extent to one side of the head. This line of demarcation suggested a nervous influence, and in his lectures M. Charcot spoke of the congestion

and the ecchymoses as the result of vasomotor paralysis, the existence of which, so manifest in hemiplegic limbs, could not be contested in the cranial region. At the time M. Charcot made a communication on the subject to the *Société de Biologie*, M. Vulpian supported this last proposition, reporting the results of an autopsy, in which he found the pituitary membrane of the side opposite to that of the affected hemisphere red and much congested, while the nasal fossa on the same side with the cerebral effusion was perfectly healthy. More recently (December 12th, 1868) M. Charcot communicated to the *Société de Biologie* the very conclusive results of an autopsy of a woman who had died a few days after an attack of apoplexy attended with *hemiplegia of the left side*. The epicranial aponeurosis on the left side presented a vinous red color, and in a few points veritable ecchymoses. The coloration stopped *abruptly* at the median line. The left half of the epicranium preserved its normal white color; on the same side there was a hæmorrhagic effusion. Notwithstanding this clearly marked localization of the lesion, and however peremptorily it declared itself in favor of M. Charcot's theory, it was yet open to the objection that acute *ramollissement*, even in those forms which by their intensity and suddenness of attack come the nearest to sanguineous apoplexy, does not *appear* to be attended with the production of these ecchymoses. This objection is but specious. The following case, which M. Charcot and myself have just now observed, and which was carefully investigated, suffices to refute it.

The case is summed up as follows:—Several attacks of acute articular rheumatism—affection of the mitral valve—embolus in the right "sylvian" artery—cerebral ramollissement (hemiplegia on the left; infarctus of the kidneys). Clot in the left auricle—embolus in the left "sylvian" artery. Attack of epileptiform convulsions (hemiplegia on the right), death in a few hours. Ecchymoses of the pericranium on the right side. The case is then given in detail, and the inference drawn of vasomotor paralysis as the chief cause of the epicranial ecchymoses.

CHOLERA.—A history of cholera from remote antiquity down to its invasion of France in 1832, is developing in successive numbers of the *Gazette Hebdomadaire*. The etymology of the word, which is adopted by the author from among many hypotheses of the origin of the name, is the very obvious one given by Celsus, who is said to have first written upon this point. Celsus derives the term cholera from the Greek word *chole*, *bile*, and *roias* or *ruas*, *flux*.

From a citation of various passages of Hippocrates the medical historian concludes that cholera was of frequent occurrence in the time of the Father of Medicine, but presented itself only in the sporadic form. Hippocrates, he says, never attributes the disease to miasmata; but always refers it to imprudences, to excesses in eating and drinking, or to ill chosen medication. It must also be borne in mind, he adds, that under the term cholera, Hippocrates comprehended several affections of different and even opposite character. Thus his description of dry cholera contained only symptoms referable to indigestion or to the expulsion of biliary calculi. On the one hand the account of Eutichides is an instance of cholera with cramps in the legs and with suppression of urine; that of Bias, the pugilist, on the other hand, represents an indigestion.

The result of all his researches leads Dr. Scoutetten to conclude that cholera has been known and mentioned from remote antiquity, but was in ancient times confounded with other affections now distinguished from it. He thinks it very probable that the same climate and habitual neglect of hygiene which at present prevail in India produced great ravages there from the disease in former ages; but finds no proof that this scourge, leaving in ancient times its primitive dwelling place, traversed vast regions of the inhabited world, to spread death and desolation in all directions.

The following passages in the noble Inaugural Address of President Eliot at Harvard University attract our special attention.

The statement is undoubtedly true which

was uttered by Dr. Jacob Bigelow, that general scholarship, as the expression was understood and as that form of culture was attained fifty years ago, is now impossible; because the scope of each branch of knowledge has been so enlarged, and because so many new fields of research have been opened. Yet this statement is a good foundation stone for the additional block which President Eliot has hewn out for us to lay upon it, in the extract we now make.

"The actual problem to be solved is not what to teach, but how to teach. The revolutions accomplished in other fields of labor have a lesson for teachers. New England could not cut her hay with scythes, nor the West her wheat with sickles. When millions are to be fed where formerly there were but scores, the single fish-line must be replaced by seines and trawls, the human shoulders by steam elevators, and the wooden-axled ox-cart on a corduroy road by the smooth-running freight train. In education there is a great hungry multitude to be fed. The great well at Orvieto, up whose spiral paths files of donkeys painfully brought the sweet water in kegs, was an admirable construction in its day; but now we tap Fresh Pond in our chambers. The Orvieto might well remind some persons of educational methods not yet extinct. With good methods we may confidently hope to give young men of twenty or twenty-five an accurate general knowledge of all the main subjects of human interest, besides a minute and thorough knowledge of the one subject which each may select, as his principal occupation in life. To think this impossible is to despair of mankind; for unless a general acquaintance with many branches of knowledge, good as far as it goes, be attainable by great numbers of men, there can be no such thing as an intelligent public opinion; and in the modern world the intelligence of public opinion is the one condition of social progress."

In former days general scholarship meant, we take it, a tolerably thorough acquaintance with the various departments of literature and science of the time. That this is possible as applicable to the present period, we presume is not claimed. But that a university education may be given which which shall train men to grasp the principal accepted results of those who study in special directions, and to get some insight

into the various methods of attaining those results, is quite conceivable. For example, a sound medical education now enables one to master many of the results of chemistry, of microscopy, of ophthalmology, while the same individual, unless he were a prodigy, would hardly be capable of penetrating with the microscope the minute wonders of the animal and vegetable kingdom, of manipulating abstruse chemical analysis and synthesis, of following Donders and others into the details of ophthalmology, and at the same time of exploring all the recesses of physiology, pathology and the other sciences tributary to medicine.

The following passage falls in with our views as expressed some little time since:

"The examination [for admission to College] is conducted by college professors and tutors who have never had any relations whatever with those examined. It would be a great gain, if all subsequent college examinations could be as impartially conducted by competent examiners brought from without the college and paid for their services. When the teacher examines his class, there is no effective examination of the teacher. If the examinations for the scientific, theological, medical and dental degrees were conducted by independent boards of examiners, appointed by professional bodies of dignity and influence, the significance of these degrees would be greatly enhanced. The same might be said of the degree of Bachelor of Laws, were it not that this degree is, at present, earned by attendance alone, and not by attendance and examination."

We make one more brief extract:—

"The Medical Faculty affords another illustration of the same principle—that for real University progress we must look principally to the teaching bodies. The Medical School to-day is almost three times as strong as it was fifteen years ago. Its teaching power is greatly increased, and its methods have been much improved. The gain is the work of the Faculty of the School."

SINCE writing an article alluding to the importance of restraining the insane from going at large—published in our issue for October 14—a copy of the *American Law Review* has been placed in our hands, having for its leading article a paper on "The Confinement of the Insane." The mono-

graph is, we understand, from the pen of a high authority. The causes assigned in it for the popular prejudice that some persons are too easily liable to be sent to hospitals by interested parties, are those which we ventured to suggest :—viz., the complaints of lunatics and the sensational stories of book-wrights. We make the following extracts :—

In January, 1845, Josiah Oakes was brought before the Supreme Judicial Court of Massachusetts, on a writ of *habeas corpus*; the object of which was to procure his discharge from the McLean Asylum for the Insane, to which he had been committed by his family, on the 16th of the previous month. Chief Justice Shaw, in delivering the opinion of the whole court, replied to the allegation of counsel that the constitution makes it imperative upon the court to discharge any person detained against his will; and that by the common law, no person can be restrained of his liberty, except by the judgment of his peers, or the law of the land. "We think," said he, "there is no provision, either of the common law or the constitution which makes it the duty of the court to discharge every person, whether sane or insane, who is kept in confinement against his will. The provision, if it be true, must be general and absolute, and not governed by any questions of expediency to suit the emergencies of any particular case. The right to restrain an insane person of his liberty is found in that great law of humanity which makes it necessary to confine those whose going at large would be dangerous to themselves or others. \* \* \* The necessity which creates the law, creates the limitation of the law. \* \* \* If there is no right to exercise that restraint for a fortnight, there is no right to exercise it for an hour. And if a man may be restrained in his own house, he may be restrained in a suitable asylum, under the same limitations and rules. \* \* \* The provisions of the constitution, in relation to this subject, must be taken with such limitations, and must bear such construction, as arise out of the circumstances of the case. Besides, it is a principle of law that an insane person has no will of his own. In that case, it becomes the duty of others to provide for his safety and their own. \* \* \* The question must then arise, in each particular case, whether a person's own safety, or that of others, requires that he should be restrained for a certain time, and whether restraint is necessary for his restoration, or will be con-

ducive thereto. The restraint can continue as long as the necessity continues. This is the limitation, and the proper limitation." The court being satisfied that Oakes was insane when admitted into the asylum, and that he had not yet fully recovered, refused to discharge him, adding, that "the restraint should last as long as is necessary for the safety of himself and of others, and until he experiences relief from the present disease of his mind." 8 Law Rep. 122.

\* \* \* \* \* Undoubtedly there is a patient, now and then, whose convalescence would be as speedily conducted to the last stage of recovery at home as in a hospital; but it is difficult to distinguish them from the much larger portion who would be grievously injured by the change. Friends often solicit it, and no duty incumbent on the physician is more embarrassing, more requiring a readier discernment of the countless phases of mental disorder, more practical sagacity in penetrating beneath the surface, than to meet their wishes judiciously. In most instances where the step is taken against his advice, the experiment fails, and a protracted continuance of the disease, if not an utterly incurable condition, is the result. And the cause will be obvious on a little reflection. The period of convalescence is precisely that of all other stages when the peculiar management of the hospital is needed to complete this process surely and safely. The patient's reason has returned; he sees things and persons in their true aspect; he feels that buoyancy of spirit which usually accompanies returning health; he becomes impatient of confinement because he cannot see its necessity; his friends yield to his importunities, and he becomes again the master of his own movements. With a brain still weak and irritable, wanting that firmness which only time and rest can give, he resumes at once his ordinary habits and pursuits, turning a deaf ear to all advice, soon uses up all his little power of endurance, loses all self-control, and again passes under the cloud. Had he continued a few weeks longer under the gentle restraints of the hospital, and its carefully measured indulgences, the requisite degree of nervous hardihood would have been acquired, and he would have been prepared to encounter successfully the trials of unrestricted freedom. \* \* \*

In the "project of a law for regulating the legal relations of the Insane," which was unanimously sanctioned by the "Association of Medical Superintendents of North American Hospitals for the Insane,"

we find the following section:—"Insane persons may be placed in a hospital for the insane by their legal guardians, or by their relatives or friends in case they have no guardians, but never without the certificate of one or more reputable physicians, after a personal examination made within one week of the date thereof; and this certificate to be duly acknowledged before some magistrate or judicial officer who shall certify to the genuineness of the signature, and of the respectability of the signer."

Under such a provision the insane may be promptly, quietly, and, with a few possible exceptions, rightfully, placed by their friends in some hospital for the insane. For the possible exceptions, we would have a provision applicable to them alone, and not, at the same time, subjecting all the rest to positive discomfort and injury. If the writ of *habeas corpus* should not be supposed to furnish sufficient relief, a commission might be appointed especially for this purpose. In the "project of a law" just mentioned, we find the following provision:—"On a written statement being addressed by some respectable person to some high judicial officer, that a certain person then confined in a hospital for the insane is not insane, and is thus unjustly deprived of his liberty, the judge, at his discretion, shall appoint a commission of not less than three nor more than four persons, one of whom, at least, shall be a physician, and another a lawyer, who shall hear such evidence as may be offered touching the merits of the case, and, without summoning the party to meet them, shall have a personal interview with him, so managed as to prevent him, if possible, from suspecting its objects. They shall report their proceedings to the judge, and if, in their opinion, the party is not insane, the judge shall issue an order for his discharge." True, this only abbreviates the wrong: it does not prevent it altogether. But when we consider how small it is, compared with the good which is accomplished, may we not fairly regard it as one of the unavoidable results of that imperfection which is incident to all human arrangements, and which we witness every day of our lives, even in this very matter of wrongful imprisonment? Men are arrested, kept in durance, charged with a criminal offence, and yet found on trial to be innocent of the charge—the victims, perhaps, of conspiracy or perjury. This is no rare, extraordinary thing—one case in ten thousand—kindling the wrath of every newspaper-writer in the land, and calling for special and summary legislation; but an every-day occurrence,

exciting as little feeling as the most common operations of nature. We are told very calmly that such wrongs are a part of the price we pay for public order and good government.

Justice to all parties requires some such legislation as we have proposed. That it would prevent all popular clamor, now so loud and wrathful, we do not believe. That will continue as long as the wrongful imprisonment of sane persons is capable of adding to the interest of a novel, or as long as the stories of the insane are received by credulous people as unqualified truths.

"TOMATO WORM." *Mr. Editor*.—I copy the following from the *American Entomologist*, Vol. I. No. 2:—

\* \* \* \* "Many persons are afraid to handle this worm, from an absurd idea that it has the power of stinging with the horn on its tail. We have handled hundreds of them with perfect impunity, and for the small sum of one cent will undertake to insure the whole population of the United States against being stung by this insect, either with the conspicuous horn on its tail, or with any hidden weapon it may have about its person."

The specimen in the possession of Dr. Fuller is not an unusually large one. I have picked them from my tomato vines, with my bare hands, every morning this summer, and have neither been stung nor "spit" upon by them, although they were handled in a sufficiently rough manner to warrant it did they possess the ability.

AMOS SAWYER, M.D.

Hillsboro', Ill., Oct. 10, 1869.

THE following remarks are extracted from an address delivered by Dr. Isaac Ray, of Philadelphia, on the occasion of laying the corner-stone of the State Hospital for the Insane at Danville, Pa.:—

In justice to the hospitals, let me say in this connection, that, in their turn, they have repaid their debt to society, by diffusing benefits besides those immediately connected with the care of the insane. We have been so impressed by the immediate effects of this benevolent enterprise, that the good which has come from it indirectly has been in danger of being wholly overlooked. To have restored the light of reason to thousands, and made comparatively comfortable tens of thousands, is, certainly, a noble work; but let us not be insensible to the light it has thrown upon the dark places of



mental philosophy, and of civil and criminal jurisprudence; upon the temperament and habits of men, and the course of human conduct. It will hardly be disputed that, without a correct philosophy of the mind, we shall strive in vain to master the great questions of moral and political science that deeply involve the happiness of men. Neither will it be disputed by many, I apprehend, that the actual, available knowledge contained in the writings of all the metaphysicians from Plato down to Dugald Stewart, is marvellously small, when compared with the mass of words in which it is conveyed. To the student familiar with the exacter methods of modern investigation, the reason is obvious. The properties of organic matter, the nature of its functions, and the laws which regulate its action, cannot be thoroughly understood without observing it when under the influence of disease. This separates and analyzes what seemed to be inseparable, and associates by a common bond things supposed to have no necessary connection. It shows us as nothing else can the true limits and distinctions between one power and another, and gives us the clue to the secret of their harmonious action. The brain, though not the mind, is the organ of the mind, the material instrument whereby its operations are conducted, and it is only by the study of its organic conditions, both in health and disease, that we can expect to obtain any insight into the processes that result from the mysterious union of mind and body. To learn how we think, and how we feel, to understand, in any degree, the wondrous mechanism by which the mental manifestations are accomplished, we must study its morbid aberrations from the line of healthy action, as exhibited in the wards of the hospital. There, in the ravings of the excited maniac, in the gross delusions of the monomaniac, in the mischief and malice of the morally insane, in the gloom and despair of the melancholic, in the dual life of the subject of circular insanity, we have the materials, in part, wherewith to construct a true psychology. Any mental philosophy in which this source of information is ignored must needs be imperfect; but this fact could not be perceived by the metaphysicians, with whom it was a cardinal principle, that, for the successful study of the mental phenomena, one has all the necessary materials within himself. Better views on this point are beginning to prevail. "He who raises moral pathology to a science," says one of the prominent thinkers of our day," "expand-

ing, systematizing, and applying many fragmentary observations that have been already made, will probably take a place among the master intellects of mankind."\* No one who has carefully followed the course of psychological inquiry during the last twenty or thirty years, can have failed to observe abundant ground for this opinion. In the writings of Spencer, Bain, Morrell, Lewes, and others, hardly excepting Comte, we may easily trace the influence exerted by that study of morbid psychology, which has been stimulated by the abundant opportunities of observation afforded by the numerous hospitals for the insane. Is it too much to say that if those writers have struck upon the true path to successful inquiry, and inspired the world with new faith in metaphysics, it must be attributed in some degree to that influence?

That the laws involving questions of insanity, and especially the common law, have reflected the same influence, is admitted by all who are conversant with the subject. It is little more than fifty years ago when the law regarded no one as really insane who was not raving. Or, if the disease was recognized in its less obtrusive forms, it was considered merely as a disturbing influence which the patient was bound to control by means of the sanity that yet remained. Insane persons were made to suffer the extreme penalty of the law, if they knew the criminal act was wrong, or illegal, or displayed design and contrivance; and especially was the idea of insanity scouted, if the act seemed to be the result of provocation, or any other rational motive. Within our own time, persons have been executed who proclaimed from the gibbet delusions as monstrous as any that may be heard within the walls of any hospital in the land; and others have been discharged from confinement, by due course of law, simply because they could utter a few coherent sentences, and maintain for a few minutes a calm and rational demeanor. Such things are seldom seen now, thanks to the better knowledge and better influences diffused by hospitals for the insane; and if they are to disappear entirely, it will be owing, in great part, no doubt, to the same agency.

Let me also say that the moral pathology to be learned in these establishments will have an important bearing on some of the prominent questions of moral and social science. If we are ever to obtain a correct theory of human conduct, to discover, in any degree,

\* Lecky, W. E. K. History of European Morals, I. 167.

the secret springs of action, or to penetrate into the mysteries of human delinquency, it must be by the study of morbid psychology in that broad and liberal manner which is possible only amid large collections of the insane. No one who declines to receive his opinions on trust can help being embarrassed by the problems presented by many an historical name, or those revelations of character so often found on the records of our courts. We seek in vain for any light on the questions thus raised, and are obliged to rest helplessly in the conviction that there are more things in heaven and earth than are dreamt of in our philosophies. Indeed, these difficulties cannot be overcome by any theories of human conduct which suppose the mind to be in a perfectly normal condition. They point to imperfection, or deficiency, or obliquity—the result of organic influences—and they can be cleared up in no degree except by the profound study of organic conditions in connection with abnormal mental phenomena. From this kind of study we may justly expect that a light will be thrown on the field of history and biography, by which many of their pages will be read with sentiments very different from those which they now inspire. It would show us, probably, that much of what the world calls genius is the result of a morbid organic activity; that many a saint, or hero, or martyr, became such more by virtue of a peculiar temperament than of a profound sense of moral or religious obligation; that the horrible crimes which have imparted an infamous distinction to the Tiberiuses and Caligulas of history proceeded rather from cerebral disorder than a native thirst for blood.

#### THE CASE OF SURGEON GREEN, U.S.N.—

\* \* \* \* The facts of the case are set forth in the following communication, which we transcribe from the *Evening Post*, of the 28th of September, and which we have good authority for believing to be an unexaggerated statement:—

#### To the Editors of the *Evening Post*:—

In your Washington telegraphic news of the 23d, it is stated that the case of Surgeon Green, of the navy, has been passed upon by Secretary Robeson, and that the Surgeon has been suspended for two years. If this is correct, a short statement of the facts of this somewhat extraordinary case may not be out of place, that the public may know something of naval discipline

and of its requirements, or of the acts done in the name of discipline.

Surgeon Green was attached to the United States steamer *Nipsic*, which in February last was lying in the harbor of Aspinwall. A seaman on board the vessel had his head cut open with a cutlass, inflicting a wound three inches long, and to the bone. He reported to the surgeon as unable to do duty, and was thereupon put by him on the sick list, which excused him from duty. The commander of the vessel, seeing the man's name upon the list, asked the surgeon why he put it there, and told him to remove it. The surgeon replied, "You have the power, sir, to order the man to duty, but I cannot conscientiously do it, as I believe the man to be too ill." The commander then ordered him to take the man's name from the list, and the reply was "I cannot do it, sir; I do not consider it a legal order"—the surgeon thus refusing to alter his written opinion, that the man was sick, and to take the responsibility of sending him to duty in the sun of a tropical climate, with an open wound upon his head. Upon the trial, Dr. Green did not deny the disobedience, placing his defence upon the ground of the illegality of the order. He proved that the case was an unprecedented one, and that no commander had ever before arrogated to himself the right of judging of the sickness of a man. He proved by the testimony of the oldest surgeons in the navy that he would have forfeited his character as a humane man had he obeyed the order, and he introduced a precedent in the army, where General Grant had ordered that a surgeon's opinion should be respected and acted upon in a case where the surgeon claimed the right to decide as to the health of men as his peculiar prerogative. But notwithstanding this he was convicted by the court, and it would seem that Secretary Robeson upholds that conviction.

This case is to be a precedent, and its consequences may be summed up as follows:—A surgeon must hereafter sacrifice his professional knowledge, his conscience, his humanity, at the will of a commander. If he is ordered to do an act (as in the present instance) where the life of a man may be involved, at the word of command he must obey. If (as in the present instance) he sees illegal punishments inflicted at the will of a tyrannical commander, he must consent to give his official sanction to the carrying of them out, and all this in the name of discipline, but in reality to gratify the pride of a few men, who would make the command of a ship a position for the

display of more arbitrary power than is felt in a despotism.

But, as there are wheels within wheels, this decision does not cause so much surprise among those who understand the influences which have been at work in the Navy Department to effect a conviction.

Surgeon Green had the temerity to submit to the department charges against the commander of the Nipsic, so serious in their nature that they have been wholly suppressed. These charges were, that the said commander had punished men illegally, and tortured them by tricing them up by the arms; also, that he had showered hundreds of buckets of water as a punishment; also, that he had run men up and down the rigging of his ship until they were unable to do duty and were put on the sick list. Upon these charges, any one of which would, if proven, have procured the dismissal of the accused from the navy of any nation, Secretary Wells ordered a court of inquiry, but as the order was issued just at the close of his term of office, Secretary Borie or Admiral Porter suppressed it, and it is now, or was, a month since, pigeon-holed in the department.

These abuses of humanity and justice can only be rectified by public sentiment, acting through the public press and through Congress; and distinguished senators and members have promised that in the coming session they will give their attention to the subject.

JUSTICE.

It is true that the Secretary of the Navy has virtually remitted the penalty imposed; but the sentence of the court remains as a burning disgrace to a service wherein if one man be found capable of sacrificing an unoffending life to a paltry spite or clique, a decision can be procured endorsing his action, and visiting punishment instead of praise upon the medical officer who fulfilled a sacred duty in endeavoring to protect the life committed to his charge. \* \* \* \*

*New York Medical Gazette.*

HEMORRHAGIC MALARIAL FEVER.—We make a few short extracts from an article in the *New Orleans Journal of Medicine* on this subject, by R. F. MICHEL, M.D., of Montgomery, Alabama.

Syn. *Hæmorrhagic Malarial Fever* [Michel]. *Black Jaundice* [Ghent]. *Cachemia* [Osborn]. *Cachemia Hæmorrhagica* [Owens]. *Ictero Pernicious Fever* [McDaniel]. *Malignant Congestive Fever* [Osborn]. *Purpæmia* [Riggs]. *Yellow Remittent* [Sholl].

*Yellow Disease. Cane-brake Yellow Fever. New Disease.*

*Definition.*—A malignant malarial fever following repeated attacks of intermittent, characterized by intense nausea and vomiting, very rapid and complete jaundiced condition of surface as well as most of the internal organs of the body, an impacted gall-bladder and hæmorrhage from the kidneys. These phenomena present themselves in an almost uninterrupted link, attended by remissions and exacerbations. It is a fever peculiar to the Southern part of the United States. \* \* \* \*

Dr. Sholl says:—"This is eminently a grave disease. Of twelve cases I have seen in consultation and my own practice, six, or fifty per cent., have been fatal. \* \* \* \*

The most common mode of death in hæmorrhagic malarial fever, is by a gradual exhaustion and wearing out of the powers of life; most of the cases on record terminated in this way. But sometimes you will observe uremic poisoning, and in these cases the mode of death is either by profound stupor on the one hand, or uremic intoxication with delirium, coma and convulsions on the other. \* \* \* \*

At an autopsy of a case of the disease, the intestines were normal, and the pancreas its usual length, about six inches, and brightly yellow, especially its angular lobules.

The spleen (naturally five inches in length, four inches in breadth, one and a half inch in thickness, and weighing seven ounces), was almost *three times its normal size*, and instead of being friable, as we usually find it, it was of a firm and solid consistency, occupying not only its usual resting place, but encroaching upon the lumbar region, and taking up about half this space. *The weight of the spleen was nineteen and a half ounces.*

The kidneys were much larger than usual, the normal weight of a healthy kidney being four and a half to six ounces, while this kidney weighed *ten and a half ounces*, which is almost double the normal weight. The kidneys presented an appearance which was *most peculiar*. The dense fibro-areolar tissue surrounding the kidney could be easily peeled off, leaving the organ smooth and of a pale-reddish color, demonstrating the fact that the organ had passed through no severe inflammatory action. A transverse section revealed the cortical and medullary substance of a dark-green color. *This organ appeared to have been well soaked in alcohol, until it had become hardened, and then painted a bottle-green color.* The supra

renal capsules were of their usual yellow color, and these appendages to the kidneys were perfectly normal. \* \* \* \*

**PERSISTENT PRAPISM.**—From a report of a case by Dr. B. S. Hargis, of Pensacola, Fa., we extract the following:—

*Symptoms and condition of the organ.*—Countenance haggard and expressive of anxiety—general demeanor indicative of much suffering and alarm. Intense pain referred to the virile member; sense of weight or heaviness about the *anus* and *perineum*. On inspection, the organ presented an intense rigidity and hardness, and stood at an obtuse angle with respect to the abdomen. The *glans*, *corpora cavernosa*, *corpus spongiosum*, in a word, all the parts of the member were involved—agony increased on slight pressure; temperature apparently natural. No enlargement or signs of disease referable to the *body* of the prostate; bladder nearly empty, no vesical irritation had ever been complained of; no recital *entozoa*; other functions normal.

*Treatment*, May 10th, 10 A.M.—Potass. bromidi grs. xv., in solution, every two hours. Four P.M., pain relieved, organ flaccid, but sore. Continue the solution in doses of grs. v. every four hours.

May 11th, 9 A.M.—Has slept well during the night; no pain, but a little soreness; urinates well; appetite good, with buoyant spirits; returns to the duties of his vocation.

July 15.—Has another attack immediately after sexual congress with his consort; applies at the pharmacy for same prescription, and not being able to obtain it in consequence of my absence, procures an *anaphrodisiac* mixture from one of the employees of the establishment, and after taking it faithfully for fourteen hours without relief, advises me of his condition and gets the following:—R—Potass. bromid., ℥ij.; aq. pur., ℥iv. M. S. Take a wine-glassful every hour in some water.

July 16th.—Saw the patient this morning; he was perfectly relieved. Said two doses were sufficient. I advised a continuance of the bromide in small doses (five grains) three times a day, and enjoined upon him the observance of a restraint on his passions, and urged that it would be better to banish all libidinous thoughts from his mind, if possible, for a time. Nearly nine months have elapsed since, and the patient has continued in good health, and enjoys his connubial felicities as formerly, but not quite, he says, so free of restraint. —*N. O. Journal of Medicine.*

**HOW FAR CAN FLUIDS, INJECTED PER RECTUM, PASS INTO THE INTESTINES?**—Dr. D. von Trautenheimer investigates this question. He employed a solution of ferro-cyanide of potash; after injecting this, he opened the intestinal canal and applied a solution of chloride of iron to the mucous membrane, so as to form Prussian blue wherever the ferro-cyanide was present. He employed an injection apparatus which allowed accurate control of the quantity injected; with either an ordinary anal pipe, or a tube of fifty centimetres in length. The introduction of the latter is not without its difficulties; the lower part of the intestines must be free from collections of feces, from strictures, and from deformities; the tube must then be bent, like a catheter, with the aid of a wire stilet, to fit the concavity of the sacrum, so as especially to avoid the promontory. In order that the stilet may not escape at the end, and wound the intestine, it is fastened to the tube at its external end with a clamp. When the tube has been introduced about nine or ten inches above the anus, it is seized spasmodically by the so-called "third sphincter." No force must now be used, the spasm will presently relax of itself; the greatest patience and prudence must be observed. This is the point of chief difficulty, but the introduction of the long tube is the only way to make the fluid pass beyond it. The author's experiments on dead bodies, on one woman who was dying, and on animals, have proved that an elastic tube used with proper caution will allow fluids to be injected up to the junction of the large and small intestines. This result encouraged the author to apply remedies directly to the mucous membrane of the large intestine in diseased conditions. In eleven cases of dysentery he injected ten to thirteen ounces of solutions, respectively containing tannin (two grains to the ounce), tannin with laudanum (10 to 20 drops to the enema), nitrate of silver ( $\frac{1}{2}$  to 1 grain to the ounce). The results were extraordinarily good. Already on the second or third day—two injections having been used daily—the stools had become feculent. The author also relates a case of large collection of gas in the intestine of a patient with purpura, where the introduction of the long tube gave exit to the gas, and wonderfully relieved the sufferer.—*Deutsches Archiv f. klin. Med. der praktische Arzt*, April, and *Practitioner*.

**THE AMERICAN PHARMACEUTICAL ASSOCIATION.**—At the recent session of this body, a

committee appointed for the purpose submitted a printed bill to the Association, for the consideration of the members, to be presented to the Legislatures of the several States for adoption. This bill, it will be seen from the following outline, contains some remarkable features. The preamble provides that—

*Whereas*, The safety and welfare of the public are endangered by the sale of poisons by unqualified or ignorant persons; and *whereas*, in all civilized countries, it is found necessary to restrict this species of traffic, and to provide by law for the regulation of the delicate and responsible business of compounding and dispensing the powerful agents used in medicines; and *whereas* the adulteration and sophistication of drugs and medicines is a species of fraud, which should be prevented and suitably punished; therefore,

*Be it enacted*, First, that medicines and poisons be dispensed only by registered pharmacists; second, that no person can become a registered pharmacist unless a graduate in pharmacy, or a practising pharmacist or assistant.—*Medical and Surgical Reporter*.

**BICHLORIDE OF METHYLENE.**—We are informed that two cases have occurred during the last fortnight at the Moorfields Ophthalmic Hospital, in which the inhalation of the bichloride of methylene caused alarming symptoms. In each the symptoms consisted in sudden syncope, and in each they passed wholly and quickly off under appropriate treatment. In each the patient was a young child (in one an infant), and it is suggested that perhaps this agent may be less safe in very young subjects than in adults. The bichloride has of late been extensively used at Moorfields Hospital, its peculiarities of rapid effect and rapidity in passing off, and the seldomness with which it causes sickness, having great value in operations on the eye. The patients are rarely more than a minute under its influence before the operation may be commenced; and after its completion they usually wake up at once, and are able to walk away as soon as the bandages are adjusted. In these respects the contrast between it and chloroform is very great. It is less adapted for prolonged operations.—*British Med. Journal*.

**ERUPTION OF THE SKIN CAUSED BY AN INSECT FOUND IN DAMAGED WHEAT.**—In some parts of France, from the heavy rains of last year,

the wheat was damaged. The persons employed to turn it over became affected with a very troublesome eruption, which, commencing with painful itching, ended in the course of a few hours in redness and a milial eruption, which disappeared in the course of three or four days. M. Rouyer noticed a great many small black moving points, of the same nature as those observed on the damaged wheat. Examined under the microscope, he found them to be acari. *Med. Press and Circular*.

“THE PRINCE OF DUPES.”—The distinguished mathematician, M. Chasles, has been under the humiliating necessity of confessing to the Académie des Sciences that he has exhibited an amount of gullibility which, did it rest on less indisputable testimony, would be simply incredible. As every one knows, he has for the last year or two been deluging the Academy with manuscript letters of Newton, Pascal, Galileo, and other scientific celebrities, contesting well-established claims, and rendering it necessary, had the documents been genuine, to almost rewrite the history of science. To every doubt he replied by new confirmatory letters, drawn from what seemed an inexhaustible budget, until their number amounted to hundreds, if not thousands. Those which related to Newton contained such obvious discrepancies and inaccuracies that their spuriousness has been long since established among ourselves, and whenever any of the other letters have been submitted to the critical examination of competent persons they have broken down in like manner. Not only foreign *savants*, but numerous members of the Academy, have loudly expressed their disbelief in their authenticity, and called on M. Chasles to declare the source whence he obtained this ever-flowing supply. This he determinately and repeatedly refused to do, and so the matter rested. The other day, however, M. Chasles came forward with all the simplicity said to characterize the true *savant*, and stated that he had been made the victim of a band of forgers, the chief of whom he had delivered over to the police. How these ingenious scoundrels practised on their dupe, and continued to ease him of what is stated to have been almost a fortune, long after his suspicions ought to have been aroused by the reclamations the letters already published had excited, the tribunals will hereafter disclose.—*Medical Times and Gazette*.

## Medical Miscellany.

**BOSTON DISPENSARY.**—At a meeting of the Corporation of the Boston Dispensary, held on Wednesday, Oct. 14th, the following named gentlemen were elected Managers for the ensuing year:—Uriel Crocker, J. H. Wolcott, George H. Kuhn, Henry B. Rogers, William R. Lawrence, Abbott Lawrence, Thomas Wigglesworth, Samuel Johnson, Rufus Ellis, John T. Bradlee, George L. Ball, and Arthur Lincoln. *Treasurer*, Francis E. Parker.

At a subsequent meeting of the Board of Managers, held on Monday, Oct. 18th, 1869, the organization was completed by the choice of—*President*, George H. Kuhn; *Secretary*, Arthur Lincoln; *Superintendent*, Samuel A. Green; *Apothecary*, A. K. Carruthers; *Assist. do.*, John H. Abbott; *Second Assist. do.*, Dennis Graham. *Surgeons*—Francis H. Brown, Seth L. Sprague, John Homans, J. B. Treadwell. *Physicians*—Hall Curtis, J. McLean Hayward, P. A. O'Connell, Charles B. Porter, Samuel W. Langmaid, Frederic I. Knight, Francis B. Greenough, Wm. F. Munroe, Charles E. Inches, Samuel G. Webber, John C. Warren, J. Franklin Appell. *District Physicians*—No. 1, Henry Tuck; No. 2, John B. Fulton; No. 3, David H. Hayden; No. 4, Wm. H. H. Hastings; No. 5, Robert Disbrow; No. 6, Alfred L. Haskins; No. 7, David F. Lincoln; No. 8, Hugh Doherty.

"Dearborn Branch" at the Bureau of Charity. *Surgeons*—Algernon Coolidge, George G. Tarbell, Arthur H. Nichols, H. H. A. Beach, Thomas Dwight, Jr. *Physicians*—F. E. Oliver, Robert Amory, Thomas W. Fisher, Thomas Waterman.

M. NELATON has been lassoed in the *Gazette Hebdomadaire* for a singular pronouncement of his in the *Paris Figaro*! The burden of the Professor's song seems to have been to exalt Dupuytren and clinical surgery at the expense of microscopical investigation and diagnosis.

**A MODEL DOCUMENT.**—The following is a literal transcript of a document written by a practising physician in this city and offered as evidence in a case in the Police Court recently. If the writer's knowledge of medicine is as extended as his orthographical acquirements, the profession would do well to hunt him out:—

"I was called on to go and see Samel snapinsea on the 11 september i found him in bead and was brused vary bad his ribs on the left side was varey badly brused and the left lung apeers to be ingered from the brusers and there was severil brusos on his body besides."—*Detroit Free Press*.

**FOREIGN ITEMS.**—On Friday, Oct. 1st, the Curators of the Edinburgh University, by a majority of four to three, elected Dr. William Rutherford Sanders to the chair of Pathology, vacant by the resignation of Dr. William Henderson.

By telegram we learn that cholera has broken out afresh among Her Majesty's 41st regiment at Subathoo. The scourge has also reappeared at Lucknow, this time among the Lancers, who have gone out into camp. Surgeon-Major Batson has succumbed to the malady.

M. Marey, the well-known inventor of the sphymograph, and the distinguished physiologist, has been selected by the Paris Academy of Sciences to succeed Flourens in the chair of Physiology in the College of France.

The *post-mortem* examination of Marshal Niel revealed the existence of four large calculi in the bladder. M. Nélaton had diagnosed the presence of many calculi during life. Two of these had been crushed by the lithotrite, but the weakness of the patient forbade the continuance of the operation.—*Dublin Medical Press and Circular*.

**QUININE vs. HENS.**—Dr. George Colmer had occasion to prescribe quinine for a lady. She made it with flour into pills, the quantity made up being 60 grains. The whole number of pills was swallowed by a hen. For a while after swallowing them the fowl appeared unsteady in her movements, and reeled as if somewhat intoxicated; but in a few minutes was again calling her children, and performing her natural duties as before.—*N. O. Journal of Medicine*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted:—Trial of Samuel Andrews—Bibliographical Notice of Jurisprudence of Medicine in its relation to the Law of Contracts, Tort and Evidence—Case of Threatened Abortion.

**PAMPHLETS RECEIVED.**—Luxations of the Hip and Shoulder-joints, and the Agents which oppose their Reduction. By Moses Gunn, A.M., M.D., Prof. of Surgery in Rush Medical College, Chicago, Ill. Second Edition. —Fiat Justitia ruat Caelum. To the Fellows of the Massachusetts Medical Society. By H. R. S.—Transactions of the Nineteenth Meeting of the Illinois State Medical Society, held in Chicago, May 18-20, 1869.

**DIED.**—In this city, 25th inst., Luther Parks, aged 80 years 11 months, father of the Editor of this Journal.

**DEATHS IN BOSTON** for the week ending October 23, 90. Males, 49—Females, 41.—Abscess, 1—accident, 3—apoplexy, 2—asthma, 1—inflammation the bowels, 1—disease of the brain, 3—bronchitis, 2—cancer, 3—cholera infantum, 4—consumption, 15—croup, 1—diarrhea, 5—dropsy, 2—dropsy of the brain, 1—drowned, 1—epilepsy, 1—remittent fever, 1—scarlet fever, 2—typhoid fever, 5—gastritis, 1—hemorrhage, 1—disease of the heart, 2—infantile disease, 2—intemperance, 1—jaundice, 1—congestion of the lungs, 4—inflammation of the lungs, 4—marasmus, 1—old age, 3—paralysis, 1—premature birth, 2—puerperal disease, 1—pyæmia, 1—synovitis, 1—syphilis, 1—unknown, 8—whooping cough, 1.

Under 5 years of age, 33—between 5 and 20 years, 4—between 20 and 40 years, 20—between 40 and 60 years, 15—above 60 years, 15. Born in the United States, 62—Ireland, 26—other places, 2.

## Original Communications.

## TRIAL OF SAMUEL M. ANDREWS FOR MURDER.\*

SAMUEL M. ANDREWS was born in Plymouth, where he lived until he was 20 years old. Then he went to Kingston, where he worked in a small cotton thread mill as an operative and overseer until May, 1868. He had small wages, amounting, in the later years, to about thirteen dollars a week.

Through all his life, in Plymouth and Kingston, he had sustained an unblemished reputation, and presumptively an unblemished character. He was reputed to be industrious, honest, faithful and conscientious in his dealings. He was amiable, humane, mild, calm in his temper, gentle in his manner, disciplined, not excitable nor irritable, and very timid. He was generous perhaps to a fault, ready to watch with the sick, to show attention to the aged and favors to his friends.

He was a member of the orthodox church, had been one of its deacons for two years, and also treasurer of the parish. He was much devoted to its interests, and looked after its spiritual and financial welfare with anxious watchfulness, and zealously coöperated in all the measures taken for its sustenance and growth. He was a teacher in the Sunday school. He attended faithfully teachers' meetings, prayer meetings, social gatherings and sewing circles, connected with his religious society.

He was early married, but has no children, and for some years his wife has been a confirmed invalid. Several years ago he bought an uncompleted house, in which he finished room after room as he had means. He owned a small piece of land sufficient for a garden, connected with the house. He cultivated this, mostly with his own

hands, before and after his work at the mill, where he was employed from early morning until evening, and had often worked extra hours very early in the morning. He took boarders, and with the profits on these and his wages at the mill he lived comfortably.

His house and land were estimated to be worth three thousand dollars. There was no incumbrance on either, except a mortgage upon which one hundred dollars remained unpaid. Yet he owed near two thousand dollars, for which he had given only personal security. He seems to have been in good credit among his towns-people, of whom he had borrowed. His principal creditor testified, in court, that Mr. Andrews owed him more than a thousand dollars, for which he held no other security than his note, and he wanted no more.

He was not reputed avaricious. He had sufficient means of living. He was engaged in no schemes, nor speculations, nor had he any plans of business, that required money, beyond the current expenses of his family, and some improvements of the church.

With his small but regular and sure earnings, his simple tastes and few wants, and inexpensive manner of life, he seems to have been contented, easy in his circumstances, and without embarrassment or occasion of anxiety.

His accounts as parish treasurer were accurately but unskilfully kept. He had advanced near one hundred dollars in payment of the minister's salary, beyond what he had received from the parish. With some others he had been appointed, by the parish, to superintend some alterations of the church, and in advance of collections or receipts from other sources, he had borrowed money, on his personal responsibility, to meet the cost.

Mr. Andrews was physically rather a slight man, five feet five inches and a half high, and weighing apparently about one hundred and thirty-five pounds. Though subject to headaches and sometimes to severe neuralgia in the eye and brain, for which he sometimes took morphine and oftener took ether, yet he was able usually to do his light work at the mill. He was

\* This account is taken from the testimony in court, at the trial, the whole of which I heard; from personal interviews with Deacon Andrews in prison, from conversations with persons in Kingston, both those who believed him guilty and those who thought him innocent of murder, and from a personal examination of the scene of the homicide.

E. J.

naturally nervous and quick in his motions, yet calm in mind, generally cheerful, but often depressed. With his full work at the factory, and his early and late work at home, he made long days of labor and took but little sleep.

#### HEREDITARY INSANITY.

He belonged to an insane family, in which the mental disease had been transmitted through four generations. His great grandmother was insane. Of her six children, only one, his grandmother, was sane, and her other five children, his great uncles and aunts, were insane. One committed suicide, and another exhibited homicidal tendencies. His mother was insane for more than two years previous to his birth, and afterwards, until her death in 1860, in an insane hospital. She was naturally of a happy temper, and her son resembled her in character. Soon after her insanity, she betrayed homicidal mania. Another son, a brother of Andrews, died insane in California.

#### CORNELIUS HOLMES.

Cornelius Holmes was a member of one of the oldest and most respectable families of Kingston. He had a strong physical frame, weighing about two hundred and twenty-five pounds. He was full six feet in height, and fifty-three years old at the time of his death. Although he belonged to a family of great intelligence and energy, and of large administrative ability, he had never engaged in business. His father, at his death in 1863, left ten thousand dollars in the hands of trustees for his benefit, the income only of which was at his disposal. From a brother, who died suddenly in 1867, he received for his share of the estate about seventeen thousand dollars.

His father died in April, 1863. Having been long intimate with Andrews, he found a home in his family in the summer thereafter. He boarded there until May, 1866, when he took up his abode in his own house, in the family of Capt. Leach, where he remained until his death.

Holmes was a member of the Baptist church; he felt a deep interest in its prosperity, and was sensitively jealous of its good name. The only difference that existed between him and Andrews, was in their almost exclusive interest in their respective churches.

Holmes was timid and unwilling to go abroad alone. He often took Andrews with him in his visits to Plymouth and Boston. Sometimes they staid over night together in the city. On these excursions, Holmes always paid the expenses of his companion.

He made Andrews his especial confidant, and consulted him about his plans. He entrusted him with his secrets, and with some of his property. He was fond of silver ware, and bought a large quantity, which he did not use, nor keep in his own house. He left most of it in charge of Andrews, because, he said, he thought it more safe to distribute valuable property in different places.

He was in the habit of carrying his money, which sometimes amounted to large sums, on his person, and often mentioned the fact to Andrews.

Being much attached to Andrews, he made him very many presents of clothing, furniture, and silver ware for his table, and at several times said he intended to favor him in the final disposal of his estate. Within a few months after the death of his brother, he made his will. He seems to have kept this matter prominent in his mind. He talked much about it with Andrews and his family, but not much with his own relatives. He said his own family were already rich, and he did not wish to add to their wealth, but would give his property to such as needed it, or as he had a personal interest in. He gave a thousand dollars to the Baptist church and some other legacies to friends, and divided the residue between Andrews and a favorite nephew, who were made the executors. The will was left in Andrews's possession.

Andrews's house is on the principal street of Kingston village. There are other houses on either side and opposite. His garden is back of his house. A footpath leads northerly from the street near Andrews's house, running back of his garden to the railroad station and an important store about half a mile distant. A lane or cartpath from the street a few rods east of Andrews's house, runs obliquely and northwesterly to farms and lands in that vicinity. This lane and footpath are the common routes for those who live on the street and own lands in that direction, or are on their way to or from the railway station and the store. This lane crosses the footpath about 200 yards north of Andrew's house and the street.

At about the same distance from the street northward is a new cemetery, laid out and ornamented with much taste, and preserved with great care. The footpath before mentioned passes through this cemetery and the lane touches at its border, and these cross each other at its corner.

Both Holmes and Andrews were fond of flowers, and seem to have taken great interest in this cemetery. They watched all



the improvements and frequently visited it. Andrews was in the habit of spending much time there, especially Sundays, reading and preparing for his Sunday-school class, in the warm season.

Holmes asked Andrews to visit him at his house, on Monday or Tuesday, the 25th or 26th of May, 1868, for he, H., was going to Boston, and wished to consult him, A., as he had generally done on such occasions, as to some purchases which he proposed to make for himself and also as presents for Andrews. A. was occupied and could not go, but wrote this note on Tuesday to him:

FRIEND CORNELIUS,—You asked me to come down to see you before you went to Boston; but it was not so that I could come down last eve, and don't think I can this eve, as I shall have to work in my garden as long as I can see. If you want to see me for anything in particular you can take a walk up. Shall be around until half past eight. Shall then go down to the store. Yours truly, S. M. A.

This note was found in Holmes's possession after his death. In the evening, while Andrews was working in his garden, Holmes came to him, and they remained there together until it was dark. While they were there, one man called and did some business with Andrews, and another was walking in the adjoining garden with no fence between them. This is the last that was seen of Holmes, except by Andrews, and the last that is known of him except through Andrews's statements.

#### ANDREWS'S STATEMENT.

Andrews made a confession of his connection with Holmes after they left the garden, and published it in the papers. He made a statement of the same to his counsel at various times, and to Dr. Jarvis in prison, and gave his testimony at his trial in court. All these accounts of the transactions between him and Holmes, after they left the garden, agree with each other. The published confession was not brought up at the trial to contradict him. There is no discrepancy in any of their parts, except that those given in private conversation are more full, in some of the particulars, than those made in public.

Mr. Andrews says that Holmes, one evening in 1859, visited him, Andrews, at his house, and proposed remaining over night. As Mrs. A. was away, H. proposed sleeping with A., to which he consented. Soon after they were in bed, H. attempted to commit sodomy upon A. He sprang from the bed and sat on the sofa. Then H. pro-

fessed great sorrow, and promised never to repeat the attempt. Again, when at the Tremont House in Boston, they slept in separate beds; but early in the night, H. came to A.'s bed and made a similar attempt, which A. resisted and escaped. The same thing was attempted on another occasion, at a boarding house in Boston. They were the next night at the house of Andrews's sister, at Newmarket, N. H., but there Andrews refused to sleep in the same room with Holmes.

#### CONFLICT AND HOMICIDE IN THE BACK LANE.

When it became too dark to plant in the garden, on the evening of the 26th of May, Holmes proposed that Andrews should go with him to the cemetery, which was near by, and look at some lots that had been recently laid out. They went to the cemetery, looked at the lots, and then for a few minutes sat on the stile where the footpath enters the cemetery. They then took the lane to return to the street. While in the lane, Holmes proposed to Andrews to walk the other way down the road, and led him into the thicket, behind some bushes or trees by the wayside, Andrews supposing he was coming to another road a few feet distant. As they entered the thicket Holmes threw Andrews on the ground on the grassy bank of the lane, and stooping or leaning over him, with his left hand he grasped A.'s long beard, and pressing upon his neck held him firmly to the ground, while with his right hand he opened A.'s pantaloons and drew them down, and forced his hands between his limbs and next to his skin.

Andrews struggled, but could not escape. Seeing the terrible nature of the attack, he thought he would rather suffer death than permit H. to accomplish his apparent purpose, and he must prevent it at any cost. Having free use of his arms and hands, he seized a stone and struck his assailant wherever he could reach him. He thinks he struck Holmes a second time as he was rolling off the bank. From that moment he, Andrews, lost all consciousness. Of what he did then he has no knowledge, nor can he tell how long he remained in this unconscious state.

The next that he remembers is, that he found himself standing, swinging his arms, holding two stones in his hands, and throwing them at Holmes. He had a feeling of great exhaustion, as if he had passed through great labor. His hat was off. His pantaloons were open and down. His hands and clothes were bloody. Holmes's dead body was before him. He adjusted his clothes,

picked up his hat, went to a pond near to the place, washed himself as well as he could, and then returned to his house.

His first thought was to confess the whole, but in consideration of his wife, who was then sick in bed, he hesitated, and let the opportunity pass by. And, moreover, he thought that the killing would be considered murder by the law, and death on the gallows the penalty.

In this doubt and fear, utterly exhausted in body and agonized in mind, he assumed his ordinary manner as far as he could, and talked on the usual matters with his family and with some ladies who were then attending a social meeting at his house. Again, the next day, after the discovery of Holmes's dead body, he tried to act the part of innocence with his neighbors and friends, and appear unconscious of any participation in the events of the evening previous, which were then absorbing the thoughts of all the people. Thus he lived a life of falsehood until the next Monday, when he made a confession and explained the whole, as above written. In the night after the homicide, he says, the thought of the will first occurred to him, and then he felt that it would be certain death to him if he were to make the confession.

#### DEAD BODY OF HOLMES.

Early in the morning of Wednesday, the 27th of May, a neighbor, going with his man from his house on the street through the lane to his usual work on his farm, discovered the dead body of Holmes in the road. It was cold. There were several wounds in the scalp. The head was very much battered, broken and bloody; the brain was partly exuded. There were many stones, bloody; one man counted twenty-seven of these. Twelve were weighed—four to twelve pounds each. There were some pools of blood on the ground, which under the head was saturated with blood.

His clothes were not unbuttoned, and nothing unusual was discovered beyond the bodily injuries. Large sums of money, amounting to seven hundred and forty-four dollars, his pocket-book, wallet, knife, some papers, &c., which he usually carried, were all found in his pockets. Many persons present, when the body was removed, aided in its removal. Several helped to remove the contents of the pockets. As they were handling his bloody person, it seems natural that the hands of some of these were soiled and carried the blood into the pockets and left the stains which were afterwards found in them.

Dr. H. J. Bigelow, Professor of Surgery, and an accomplished anatomist and surgeon of Boston, was called, and examined the body in Kingston, and afterwards made a preparation of the skull, which was exhibited at the trial. The pamphlet report quotes Dr. Bigelow:—"The wounds were principally on the back of the head and mostly on the left side. A short distance above the right ear there was a detached wound. The upper lip was cut through. The scalp was very much torn, the head very bloody, the wounds in the line of the neck up and down the body. Besides this, the scalp was badly torn. You could pass your hand under the scalp and feel loose bones, some of them driven into the brain. I counted eleven detached pieces of the skull. Blood was found all over the surface of the membranes of the brain. The membranes of the brain were torn, and the brain largely torn underneath. There was a laceration of the substance of the brain, opposite the principal wound, on the left lobe of the brain." "The wounds were made by some blunt instrument; by stones as likely as anything. The state of the skull indicated repeated blows. The blows, judging from the appearance of the back of the skull, could not have been made upward, but must have been made when the skull was below the party striking. This was indicated by the longitudinal wounds on the skull." "A separate wound was on each side of the head, indicating that they were inflicted from different directions." "Half a teacupful of brain may have been gone, perhaps less."\*

The blows were struck from above downward. Andrews, being much shorter than Holmes,† could not have struck these blows from above downward, if they were standing, face to face, on the same level of ground. But if, as Andrews represents, he was lying on his back and Holmes leaning over him, either stooping or on his knees, with his left hand on A.'s neck and his right at his pelvis, his head being above and nearly over A.'s chest, then a circle described by A.'s arm would reach H.'s head; and a blow struck, with the hand or with a stone in the hand, would impinge on the head at or near the top, and its force would be continued downward towards the neck. Andrews's right arm being the more

\* Plymouth-Rock Pamphlet Report of Trial, p. 13.

† According to the State Prison Records, Andrews was 5 feet 5½ inches in height and weighed 124 pounds. He says the most he ever weighed was 135 pounds. Holmes was 6 feet high, and was estimated to weigh 225 pounds.

vigorous and active, and opposite Holmes's left side, made the severer wounds on that side of the head.

#### ANDREWS'S SUBSEQUENT CALMNESS.

Since his confinement in prison, Andrews has preserved his previous and habitual calmness and serenity; subject, however, to his former headaches and neuralgia and some mental depression. He has also suffered from dyspepsia, in consequence of want of exercise and perhaps of change of diet. Once he had false hearing, and thought he heard the voices of men threatening to do him injury.

When I was talking with him in company with his counsel, he spoke of his unconsciousness during the conflict with Holmes. One of the counsel asked me if that was not insanity. Andrews, hearing this, said, "No, it was not insanity; it was all blank to me, and has been so ever since, but I have never been insane. I have always determined I never would be insane." I asked him "why he had thus resolved, why he had put himself on his guard against this disease more than against others." He said, it was on account of the insanity of his mother and family. He knew he was more liable to it, and had guarded himself against everything that might disturb him and produce it, and he thought he had succeeded. I asked him, subsequently, "if he had ever felt himself in any danger." He said, many times he had had feelings, emotions, wayward thoughts, which he perceived would, if indulged, lead to mental disturbance and disorder, and he always suppressed them and saved himself.

#### ABSENCE OF REMORSE.

Andrews manifested the natural and common sorrow for the death of his friend and for his agency in it. But although he confesses the fact of his striking the deadly blow, he expresses no remorse and seems to feel no compunctions of conscience. The first blow was in self-defence; this he says he remembers. In this he was a free agent; but of the subsequent facts—the manifold blows—he has no consciousness; he had no voluntary agency in, and feels no responsibility for them. Hence his calmness and self-possession, which are usual in such cases.

#### ANDREWS'S STRUGGLE IN THE CONFLICT.

Most of the facts and circumstances in this history were established by manifold witnesses. The others, and those alone of any interest here, relating to the conflict in the

lane and his state of mind during the latter part, depend almost exclusively on the statements of Andrews himself; but he is corroborated by the analogy of similar cases that have been quoted in the paper on *Mania Transitoria*.\* And a close examination and nice analysis of his account show its consistency with the facts that are otherwise known, with his character and hereditary predisposition, and with the laws of insanity.

When he was attacked and thrown down, he made a natural and sane effort to escape. In this he did what the law permits, and endeavored to overcome his assailant by force. The Court said that, in such attacks, a female is justified in resisting even unto the death of her assailant; and a man may resist even to the injury of his assailant sufficient for his escape, but no farther.

What degree of injury was necessary in this case is not known. Andrews was lying on his back, held there by a man heavier and stronger than himself. He says he felt that Holmes was resolutely in earnest, and he must escape from the assault at whatever cost. He strove with all his power, but he could not shake him off. He was intensely agitated with fear and indignation. He had no means of defence, except the stones that were all around him; but he had no opportunity to select such as would inflict just that amount of injury that would compel his antagonist to release him. It was dark; and if it were light, he was held by his head firmly to the ground, and he could not turn his head to see the size and shape of the stones. He could only use his hands to pick up whatever was within their reach. Nor was he in a state of mind to so adapt and measure the force of his blows as to merely disarm his adversary, but inflict no further injury. Certainly he remembers striking one and perhaps two heavy blows, but no more.

Andrews was probably intensely and morbidly excited. Yet so far he is presumed to have been sane; so far he had done just what any other man in his position would, and so far he is justified by the law. But here his consciousness failed, and here insanity began. The attempt at sodomy—the grossest attack that can be offered to a man of his sensitive nature—was too powerful for his brain, naturally weakened by his hereditary predisposition, to bear. It threw him off his balance and into a paroxysm of mania. Between the last consciousness, when he struck the first

\* Bos. Med. and Surg. Journal, June 10 and 17, 1869.

or second blow in self-defence, and the next consciousness, when he found himself standing exhausted, throwing stones with each hand, there was an interval of uncertain duration. How long this mentally blank interval was, and what he did in that time, he does not know. This is only a matter of inference from the condition of Holmes when discovered.

Holmes was not only killed, but he had been beaten many times on the head; his skull was pounded so much that eleven pieces of bone were separated from their connections, by rough instruments, and a part of the brain was crushed out. Twenty-seven stones were bloody, but whether they became so by being used as mallets in the hands of his assailant, or by the blood running on them from the wounds, cannot be known. Nor can it be known whether Holmes made any resistance, or whether he rose after the first blow. Blood was in the spot where the head lay, it was on the ground of the opposite side of the cartpath, farther down the lane, and on the stones scattered about at extreme points, stated to be thirty feet apart.

As the facts present themselves, here was murder of the most atrocious kind, and Andrews's confession of what he remembers, and circumstantial evidence, show him to be the sole agent in this work.

#### VERDICT OF THE JURY.

The court instructed the jury to weigh all the evidence, including that of Andrews, to give each part such measure of credit as they should deem to be due, and from this determine whether Andrews was the agent, and if so, whether in that agency he was guilty of murder in the first degree, premeditated and malicious, or of murder in the second degree with palliating circumstances, or simply of manslaughter with circumstances of still greater palliation, or of justifiable or excusable homicide.

The jury agreed upon a verdict of manslaughter. They accepted Andrews's evidence, that he was attacked, and acted in self-defence. So far he was innocent of crime. So far he had a legal right to go, but only so far as necessary to enable him to escape from his assailant. One or two blows, such as appear to have been struck with the stones, were probably sufficient to disarm Holmes of power. These alone were allowable and justifiable; all beyond these was guilt. The farther beating, the mangling of the scalp, the crushing of the skull, were not necessary for his escape. These constituted his guilt in the minds of the

jury. They held him liable for excess of violence, in heat of blood under the provocations alleged by him.

All that distinguishes this manslaughter from murder in the first degree is the fact that Holmes first attacked Andrews, and that Andrews defended himself, and all the evidence the jury had of this fact was Andrews's own statement. So far they believed him to be a credible witness.

But the same witness testified to the second fact, that after the first or second blow he lost all consciousness, that he had no knowledge at the time of what he was then doing, and he has not since had any recollection of his doings between the time when he struck the first blow and the time when he found himself standing over the dead body of Holmes. All the events of this space—the completion of the killing, the atrocious part of the homicide—occurred while he was in an unconscious state. If he did this—and he does not say he did not, nor does he say he did, for he does not know—he did it by instinct, without intent or will, as an automaton, without self-controlling power to prevent.

The same witness that testified to the first part of the encounter—the attack and the defence, the palliation which the jury admitted, testified also to the second part—the unconsciousness, the irresponsible condition, which the jury rejected. The last is as consistent with the laws of the human brain, and its general liability to disturbance, and with Andrews's special liability to mania under a powerful exciting cause, as the first is with the character and habits of both parties.

The palliation or negation of both parts or degrees of guilt in this case, stands on the same ground. They rest on the same testimony, the same credibility. If, then, Andrews is not guilty of murder in the first degree, he is not guilty of manslaughter. The same credibility of the witness, that took away the charge of premeditation and malice, and reduced the verdict from murder to manslaughter, should have taken away the charge of will or passion, and produced a verdict of "not guilty by reason of insanity."\*

#### DEVERGIE'S METHOD OF SOLUTION.

Devergie says that he found great aid in the solution of such questions as this, from

\* It was stated in the Boston Advertiser that eight of the jury believed him to be insane, and wished to give a verdict correspondingly, but afterwards compromised with others and consented to the verdict of manslaughter.

examining the facts from different points of view—the criminal and the pathological.

1. Assuming that there was guilt, and endeavoring to explain all the facts by that theory, while the opposite may present a series of improbabilities which the reason rejects.

2. Assuming that there was mental disorder, and weighing all the facts, in the same way, in that balance.\*

#### CRIMINAL THEORY.

From his beginning until the homicide, Andrews had led an irreproachable life and sustained a spotless character. There was nothing in his life, habits or conversation, that had ever induced his neighbors or associates to suspect that under all that outward fairness there was hidden corruption, secretly cherished and kept alive, waiting for opportunity to turn it to advantage, nor even moral weakness from which he would fall before any fitting temptation. Crime in him would indicate a sudden and violent reversion of all his previous habits of thought and life.

A sane criminal, when he intends to commit murder, has both a purpose and a plan. He proposes to gratify some evil desire of money, revenge or passion. He makes his arrangements to effect his object in a way the surest for his victim and the safest for himself. He prepares some fitting instrument. He selects his opportunity, time and place, when and where there may be the least danger of being heard, seen or interrupted, while in the act, or of being traced after it is done.

Andrews prepared no weapon, but waited until the conflict had begun, and then picked up such as happened to be near at hand, those of the rudest kind, stones that lay on the ground about him. He did not conceal the meeting. On the contrary, he wrote a note appointing the meeting, and left this record in the possession of Holmes, so that they could be traced together near the time and place of the conflict. Moreover they were last seen together by two witnesses in the garden, just before dark. The act was done in a lane and very near a path, over either of which people might at any moment be passing. It was within two hundred yards of Andrews's house, where a company of women were then assembled, and within about the same distance of other houses on the street, and so near that the cries of distress and the sounds of the blows were heard by persons there. No pains

were taken to conceal the fact of murder. The body was left in its mangled condition, and the blood and brain on the ground were left uncovered, in the open road.

#### MOTIVE OF GAIN.

Holmes was known to Andrews to have carried large sums of money with him. This was found undisturbed in his pocket, which a sane man murdering for money would have taken.

#### WILL.

From the time he had property to dispose of, Holmes had professed his determination to give a limited legacy to his church, and the bulk of his property to a favorite nephew and to Andrews. He was pleased with this plan, and seems to have talked of it frequently to Andrews and others. Once, when speaking of the church legacy, it was suggested that he should give more than a thousand dollars to that object. To this he answered that he could alter his will. This appeared to be in reference to this special legacy only, and indicated no thought of materially changing his principal gifts. Nor did he, at any time, manifest any wavering in his purpose to enrich Andrews and his nephew; nor was Andrews, who talked frequently and indiscreetly about the will, ever known to express any fear that Holmes would change his mind, so far as he was concerned.

Andrews had all he needed for his comfortable support, certainly while his health should last. Holmes was fifteen years older than himself, and, in the natural course, would probably leave Andrews to enjoy his legacy.

The jury, in their acceptance of Andrews's statement of the assault by Holmes and defence by himself, rejected the charge of premeditation, and with it all motive of gain and all influence of the will in inducing him to commit the crime.

#### DENIAL AND SHUFFLING.

It is true that Andrews, for a few days, denied his agency in the homicide, and shuffled, prevaricated, and in manifold ways tried to appear ignorant of the whole matter. This is certainly no proof of innocence; nor is it evidence of guilt. He knew that he had killed Holmes, and he was equally certain that he had not designed it—that the act involved no guilt. But he supposed that neither the people nor the law would make this distinction, and that, if known, he would be deemed a murderer and punished on the gallows.

\* *Annales d'Hygiène et Médecine Légale*, 2d ser. tom. xi. p. 410.

Stronger, cooler, and more self-possessed men, in similar straits, have weighed in their balance the almost infinitely small chance of entire escape from detection against the probability of mitigation of guilt and sentence, and accepted the worse alternative. It would have been better if Andrews had carried out his first intention and confessed the whole; so he thinks now, and so all, in their undisturbed mental state, think. It is very easy, when free and unembarrassed, to determine what should be done when difficulties present and dangers threaten. But when oppressed with fear, with the gallows seeming to stand before one as the penalty of telling the truth, he may lose his self-possession and firmness, his wisdom and his honesty, and select the very path that leads to his destruction. The insane commit this mistake as well as the sane. Esquirol points this out as one of their liabilities, and says "that sometimes they deny and resort to all sorts of shifts to conceal their connection with their act and to deceive others."\*

So the folly in self-management, after the act, has stamped the charge of guilt on some innocent transgressors of the law, and convicted others of crime in the higher degree who were only guilty in the lower.

Thus, weighing this homicide in the scale of criminality; there are found inconsistencies and improbabilities in every element, except the will and the shuffling immediately after the event, the first of which was rejected by the jury, and the last proves neither guilt nor innocence. All the others are inexplicable on the theory of crime.

#### **PATHOLOGICAL VIEW. THEORY OF INSANITY.**

Andrews, born of insane parentage, received and carried in his organization the primordial elements of insanity. He knew his danger of losing his reason and guarded himself against it. He determined that he never would be insane, as his family had been. Many times he had had warnings from internal suggestions, feelings and emotions, which he feared, if not checked, would lead his mind astray, and he always endeavored to suppress them, and he supposed he had always succeeded. His occupation was the most unvarying and unexciting; and to this, to his family, and to the affairs of the church he exclusively devoted himself. Beyond the church, prayer meetings, social meetings, sewing circles, he had no connection with the world abroad; so that a neighbor, who was a de-

cided believer in his guilt, said that "there was nothing manly about him—he was just fit to go with women to sewing and prayer meetings."

He was amiable, kind-hearted, tender, honest and faithful, and seemingly completely self-disciplined and self-chastened; nevertheless, at three times he was known to lose his balance and betray his cerebral weakness. Once, at his sister's, he was childish, playful and excited, and neglected his dearest friends. At another time, when a favorite nephew was killed, he lost his usual self-possession and showed an unnatural mental disturbance. And at another, after he had been told of what he supposed to be a disparaging allusion to his friend Holmes, made at a social gathering when he was not present, he was agitated, excited with grief and anger or disappointment, and lost his self-control for a short time.

He had been much subject to headaches, and neuralgia in the eyes and head. For these he took ether, which he seemed to keep constantly in the house. Mrs. Reed, a member of his family, testified that "he always complained of headache. Had trouble with his eyes three or four times a year. During one day last spring, 1868, he seemed dull; would come in and go out suddenly." He had false hearing in the prison, and delusive imaginations of dangerous threats. His minister, at one of his visits in prison, found him strange, dull, absent-minded. "His manner was entirely changed" from that which he usually manifested.

None of these were considered as insanity. They passed simply as singularities, exceptions to his general calmness and to the even tenor and propriety of his life. On each occasion he soon recovered his usual self-possession, and then appeared in his ordinary mental balance.

So far he had lived safely and defended himself from manifest insanity, until that fatal evening, when the extraordinary attack, with its offensive purpose, was more than his sensitive nature could bear or his self-control resist, and excited his naturally susceptible brain to a paroxysm of mania, in which he killed his adversary.

He does not think he was even then insane, but says that he has no knowledge of what he did in that state.

The sincerity of his statement of his unconsciousness during that conflict is corroborated by his subsequent appearance. He shows no remorse, no reproach of conscience, for the homicide, for he feels no responsibility

\* *Malad. Ment.*, ii. 838.

for his agency in that event. Manifestly and reputedly a man of tender sensibilities, without self-esteem, but self-chastened and prayerful to the day of the homicide, and, so far as human discernment can discover, the same since, he prays for the forgiveness of his sins, but does not hold this homicide among them, nor does he ask forgiveness for that act, for his mind was not in it.

Ordinary murderers repent, or at least profess to repent, and pray and ask the prayers of others, that they may be forgiven for their crime. Insane homicides generally do not feel this need of prayer, for they are not conscious of sin in the act which they have committed. Andrews was calm both in prison and during the trial, so that some, unacquainted with the laws and operation of mental disease, interpreted his quiescence as indifference and hardihood in crime and as proof of guilt, even of the darkest shade.

Marc, Esquirol and others give as diagnostic elements of insanity, in the violators of the law, all the elements of Andrews's case—hereditary predisposition, sudden outbreak, violence and excessive destructiveness in the paroxysm, sudden return to reason, and quiescence and easy conscience afterwards. And they give, as were quoted in the article on Mania Transitoria, many parallel instances, showing the natural liability of the human brain and mind to these sudden and violent reverses of their general character.

The absence of motive, the want of plan and preparation, the unfitness of the time and place for concealment, the accidental and unfitting instruments, the excessive beating and mangling, the indications of ferocious cruelty, and these in connection with his honorable and peaceful life, his pure and gentle character, and even the shuffling and attempt to mislead after the act, are all consistent with the theory of insanity.

Andrews, during his previous life, had been apparently sound both in morals and mind. Under the outward manifestation of soundness it has not been suspected that he carried the seeds of dishonesty in his heart, but he always carried the seeds of disease in his brain, which might, at any moment, under the influence of a strong exciting cause, break out in a paroxysm of insanity.

Men do not suddenly reverse their moral character and plunge at once from the heights of honesty into the depths of wickedness, but they sometimes do pass speedily

ly from apparent sanity into mental disease, especially if the brain be weakened by heritage.

The explanation of this homicide, on the criminal theory, is full of difficulties, while on the pathological theory, it is both natural and easy; and it is rare that we can, with so much confidence as in the case of Andrews, accept and apply the test of Georget, that "a horrible act, homicide or arson, without cause and without motive of interest, by one of previous honorable character, could only be the result of insanity."\*

EDWARD JARVIS.

## Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 4, 1869.

### LEUCOCYTHÆMIA.

*Additions to the History of Leucocythæmia, by Doctors AUGUSTE OLLIVIER and LOUIS RANVIER.*

We translate from the *Archives de Physiologie Normale et Pathologique* portions of an article bearing the title—*Nouvelles Observations pour servir à l'Histoire de la Leucocythémie.*

The authors call to mind that in 1866 they made to the Society of Biology a first communication on leucocythæmia; and claim that in that communication they showed the hæmorrhage and thromboses which manifest themselves in the course, and more particularly toward the close of the disease, to be caused by the accumulation of white globules in the capillary vessels. As the white globules circulate with much greater difficulty than the red, should their number become considerable and their size increase, the capillary circulation is then badly performed, and the vessels become distended or burst. Hence stasis, thrombosis, and diffused hæmorrhage. The authors contend that this is not mere theory, and that the facts on which they base their views are exact, the writers having since had several opportunities of confirming their accuracy.

In the previous paper they had suggested the hypothesis that the white globules of the extravasated blood might give rise to adenoid tissue of new formation. Although

\* Quoted by Castelnau, Ann. Hyg., xlv. 444.

this opinion still seems to them very probable, they have not been able to verify it by direct observation.

Among the cases of leucocythæmia which they have collected during the past three years, are two which they report at length, and which have enabled them not only to subject to a rigorous analysis their previous statements about the hæmorrhages and sanguineous coagulations which occur in this singular affection, but also to interpret, as they claim, certain phenomena hitherto incompletely investigated. They have, also, arrived at the conviction that other lesions quite common among the leucocythæmic, and the proper position of which had not before been fixed by pathological anatomy, are nothing else than effusions of white globules.

The first case is denominated *acute spleno-hepatic and ganglionic leucocythæmia in a young man of 19 years; remarkable thickening of the gums; albuminuria; severe cephalalgia; protracted somnolence followed by coma and death. Autopsy:—neo-membranes of the dura mater; marked hypertrophy of the follicles of the base of the tongue; accumulation of white globules in the liver and kidneys; ecchymoses, and extravasations of white corpuscles in the heart; tubercle-like nodules in the lungs—which were not tubercles nor lymphomata, but little apoplectic collections.*

The second case is headed *splenic leucocythæmia in a man of 40 years; miliary tuberculosis in the abdomen; old tubercles in the lungs; ascites; epistaxis; internal hæmorrhage following abdominal paracentesis; sudden death.*

The signs and symptoms during life, and the *post-mortem* appearances are described with the utmost minuteness of detail. Very fine plates illustrative of some of the latter are also given.

Proceeding to their inferences, the authors say it is in no wise their intention to discuss the pathogenesis of leucocythæmia itself. The opinion of Virchow, however, is considered by them the most probable—viz:—that the source of the malady should be sought in disorder of the spleen; of the lymphatic ganglions; or of all the “lymphoid” organs (the follicles of the base of

the tongue, the tonsils, Peyer’s patches, the solitary glands of the small intestine, the intestinal mucous membrane, the thymus gland). In fact, in leucocythæmia the spleen and the lymphatic ganglions are—the one or the other, or both simultaneously—the seat of more or less hypertrophy which is produced by a multiplication of the lymphatic cells situated in the meshes of their stroma. The signs of this multiplication, say our authors, are so clear, so evident, that it is now impossible to start the least doubt as to its occurrence.

On the other hand, in a considerable number of cases, there are seen built up, in the midst of organs which normally contain no adenoid tissue, tumors of greater or less size which present the characteristics of this tissue. These tumors are what have been described under the name of lymphomata, or rather of lymphadenomata. The lymphatic cells contained in their stroma present the same indications of multiplication as the organs which are physiologically lymphatic. Thus Messieurs O. et R. are led to believe that the lymphadenomata concur in the exaggerated production of the white globules.

The same cannot be said of certain morbid products which, in leucocythæmies, may be found in various organs, as is shown, they say, by the cases reported. These products have not the structure of the adenoid tissue; and far from being the cause of the increase in the number of white globules, they are simply among its effects. MM. O. and R. had already indicated both their structure and their mode of origin. They are composed essentially of white globules, and result from the laceration of the capillaries which, after being distended beyond measure, end by bursting.

[We introduce here some remarks of Dr. Isambert (reported in the *Union Médicale*), made in connection with an account of a case of “adenoid leucocythæmia.” The history of leucocythæmia, he says, has gone through several important evolutions since the first observations of Craigie, of Bennet, and of Virchow. Referred, at first, by the eminent German anatomo-pathologist, to a special lesion of the spleen and liver, the alteration of the blood was, from the year



1847, found by Virchow himself in cases where the lymphatic ganglions alone were hypertrophied (*Archiv. für Patholog. Anat.*, t. i. p. 563), or else when they presented tumefactions greater than those of the spleen and liver. The Berlin Professor then described two varieties of leucocythæmia—one splenic, the other lymphatic; and soon reports of instances of this latter variety became frequent. Further, the more profound investigation of the visceral lesions in leucocythæmia before long led the German school (Virchow, Friederich Bettscher, &c.) to distinguish in the spleen the anatomical element which in a hypertrophied condition gave rise to the sanguineous dyscrasia. That element was the glomeruli of Malpighi. Then was discovered the occurrence in all the viscera of hypertrophy of the lymphoid elements existing in them; and, finally (in rare cases, it is true), entering into what Virchow calls the heterotopy of the tissues, there were found adenoid tumors in organs which in their normal state do not contain lymphatic elements. To these tumors—these *lymphomata*—were more and more attributed the alteration of the blood: so that the prevailing theory, splenic leucocythæmia tended to retire further and further to give place to lymphatic hyperplasia.

Since the year 1856, however, Samuel Wilks has pointed out a new affection characterized by general ganglionic hypertrophy, but in which the blood presented no abnormal development of white corpuscles. This affection received from Wilks and Pary, who studied it in 1859, the name of *lymphatic anemia*. In France it was investigated by Bonfils (1857), by Leudet, by Potain, and by Trousseau, who [Trousseau] made it the subject of some very remarkable clinical lectures, and gave to the new disease the name of *adenia*. A new affection quite similar to the lymphatic leucocythæmia of Virchow, leaving out the presence of white corpuscles, occupied from this moment the attention of physicians, and it became quite difficult, in spite of the new treatises of Billroth (1862), of MM. Herard and Cornil (1865), of Cohnheim (1865), of Waldeyer (1865), of M. Nicaise (1866), of Wunderlich (1866), of MM. Ollivier and

Ranvier (1866),\* to trace the boundaries of the two diseases which presented so close a connection with each other. The following case which we have lately observed at the hôpital de la Pitié is an example of the difficulty there sometimes is in the diagnosis of adenia; and shows how slow we should be to affirm the existence of a disease which may after all be nothing else than leucocythæmia in which the alteration of the blood delays to appear. \* \* \* \*

[We omit the report of the case and pass on to a portion of M. Isambert's remarks upon it.—Ed.]

We would notice, says Mr. I., *en passant*, certain points of detail. The hypertrophy of the spleen seemed not to occur till late in the disease, as has happened in a number of cases, although we might have overlooked it at the entrance of the patient into the hospital; as there was at that time ascites, and his obesity rendered percussión very difficult. The attacks of dyspnœa were very easily explained by the hypertrophy of the bronchial ganglia, which shut up the root of the bronchi, from the bifurcation of the trachea to the hilum of the lung. We call attention, also, to the highly rapid augmentation, in the last days of life, of the proportion of white corpuscles, an event previously met with by several observers. \* \* \* \*

Was this an adenia or a lymphatic leucocythæmia? We had without hesitation passed the diagnosis—adenia. For, what with enormous ganglionic tumors in the neck, the axillæ, the groins; with a spleen apparently not hypertrophied on percussión; with attacks of dyspnœa threatening suffocation; with all these, the microscope had shown that the blood did not contain white corpuscles in abnormal quantity. Twelve days seemed to confirm the diagnosis. But, now occurs repeated hæmorrhage, and the blood, examined anew by M. Robin, shows at this period from five to six times as many white corpuscles as the normal state allows, and the patient dies the next day. Is it not clear that if an access of suffocation caused by compression of the bronchi had carried him off fif-

\* The previous work alluded to by our authors of the *Archives de Physiologie*.—Ed.

teen days sooner, the case would have passed for one of the best-marked types of adenia, while, as matters now stand, the increased proportion of white corpuscles leads us to liken it to lymphatic leucocythæmia. That proportion was not, indeed, very large, and does not exceed what we meet with in symptomatic leucocythæmia. But it had grown up rapidly from the 24th of February to the 7th of March, and this fact of rapid growth of white corpuscles in the last stage of leucocythæmia—a fact fully testified to by most observers \* \* \* —authorizes us to believe that if life had been prolonged a few days more, the proportion of white elements in the blood would have been much more considerable. This, then, was a mixed case. From one point of view it would be an adenia complicated at the close with leucocythæmia. From another point of view it would be a retarded lymphatic leucocythæmia, of which many examples are known. It is important, in fine, to let our attention dwell upon the connection between the two diseases described under the name of adenia, and under the name of lymphatic or adenoid leucocythæmia.\*

[To be continued.]

MR. EDITOR,—I think I am doing a kindness to your readers in calling their attention to the advertisement of Dr. Rogers in this week's JOURNAL. Some of them may remember a somewhat similar announcement from him last year, at the time when he was connected with the management of the St. James Hotel at Jacksonville, Fla., in the capacity of Medical Superintendent.

The St. James Hotel (universally admitted last winter to be the best in Florida) owed its origin mainly to the purpose of Dr. Rogers to provide a comfortable, home-like asylum in Florida for northern invalids who might be compelled to seek a southern refuge from the severity of our winter and spring. The project was in most respects a complete success. But experience has shown that a more quiet retreat was desi-

rable for many who found their way thither, and a favorable opportunity offering for more fully carrying out his original plan than was possible at the St. James, Dr. Rogers, with his associate Mr. Harris, purchased the well-known estate, known as Magnolia, but a few miles beyond Jacksonville, on the St. John's river. This fine estate has been for many years a favorite resort for northern invalids, when it was in the possession of Dr. Benedict. The new proprietors hope to keep up the good reputation it has so long held, and to make it in every sense a *home* for those who may be attracted to its hospitable shelter. Fitted as the medical proprietor is by long experience in the management of a sanitary retreat at the north, there can be no question of his professional qualification for the charge he has undertaken. From personal knowledge we can affirm, also, that any invalids or others who may visit Magnolia will be sure of the kindest and most courteous treatment from both proprietors.

Boston, November, 1869.

S. L. A.

A PAPER has been sent us entitled "Our Navy. Its Offense is Rank." We make an extract:—

*"The Demands of the Line simply Absurd.*

—There is no sign from Heaven, and no clause in the constitution which stamps them as the most favored of Columbia's sons. The two hundred and eighty-six midshipmen at the naval academy, educated at an expense to the government of about \$25,000 each, enter the academy during the age of infancy, and therefore, necessarily before having developed in character, or intellectual strength. They remain there, and on board the practice ships, until their studies are completed, and they attain to the stature and to the years of manhood. Their characters are moulded under the influence of officers grown up in the narrow prejudices of the old line school. It is not too much to say, judging from the effect produced, that they are imbued with contracted ideas of civil government, illiberal views of military discipline, without comprehensive views of law, and, consequently, without a just comprehension of the proper function of our navy under the republican institutions of the government. It is to be regretted that young naval officers should be puffed up with the idea, taught at the naval academy, that they are a specially privileged body, either in the nature of their duties, or by the special enactments of Congress. They in no sense make good

\* In a subsequent discussion at the Société Médicale des Hôpitaux on the connection between adenia and leucocythæmia (in which there was considerable weight of opinion on the affirmative side), M. Isambert said that the term *adenoid* is an adjective which means *glandular* or *lymphatic*, and that the word was as applicable to a *tissue* or a *tumor* as to a *disease*, especially when that disease is characterized by hypertrophy of the lymphatic glands.

the claim. The people are the government, and they exalt the deserving, while they trample upon the presumptuous.

It is evident that gentlemen who educate themselves, and who join the service at maturity, fitted to enter at once on the discharge of their duties, ought to be admitted to an equal footing, at least, with those who have been educated at an immense expense by government. For this is a republic. Its citizens stand upon an exact equality. It should, it must, place its military servants, of equal ability, experience, and age, upon an equality. Its navy should no longer be ruled by the autocracy of the line, which now domineers in its most disgusting form. The Austrian, French, Spanish and English, give rank to the naval staff, from vice-admiral and rear-admiral down to lieutenant; and autocratic Russia gives to its senior medical officer the rank of general admiral, which is equal to that of field marshal, and a grade higher than that held by Admiral Farragut. It is time to end this quarrel. It is provocative of ill blood, which always demoralizes. The assertion that the line assume all the responsibility in the navy, and that they are answerable for the staff, is a subterfuge so despicable as not to admit of expression. Such an assertion is false. The law holds each officer responsible for his acts, and subjects him to trial by court martial if he offends.

"If, however, Congress shall determine that apothecaries may be substituted for surgeons, coal-heavers and firemen for practical and scientific engineers, irresponsible clerks for bonded paymasters—then staff rank and the staff-corps will be swept away together. That would be consistent. But Congress, the people, choose to have it otherwise, and we command the line to prepare immediately for a descent from their high thrones. The gates of the wide world are now thrown open to American citizenship. \* \* \* \*

"Let the line learn a lesson from the example of the line of the army toward their fellow officers of the staff, not only as officers, but as gentlemen. We are ignorant of such weak, supercilious and unlawful persecution in the army, as has for years prevailed in our navy.

"Finally, let our rulers at Washington cast out all representatives of class interests, whether in the military, naval or civil service. Such individuals exert their baleful influence, in the confidence of self-conceit and narrow prejudices, in shaping the civil law to persecute the defenceless and exalt themselves. Let Congress deal with

this question, which is now disgracing the service and the country, with decision and boldness, just as it protects its own prerogatives. Let it show the world that, while it acts in good faith toward foreign and native brokers, it also acts in good faith toward the humblest of its citizens and officers. Let those officers of the staff who have been degraded, by usurped authority by the line in the Navy department, be restored to their former rank, to which they are entitled by the authority of that Government which bestowed it upon them, and supported them in it for so many years."

THE MODERN MEDICAL STUDENT.—We make the following extracts from a leading article in the *London Medical Times and Gazette* with the above title:—

There is probably no profession which renders such benefits to society as that of medicine, and there is certainly no class of men of whom the public knows less than of ourselves. The world in general are in the habit of looking on the Doctor as a respectable, middle-aged, gentlemanly man; but how he became so, of his education, or of his antecedents, they know nothing, and apparently do not in any way interest themselves about them. They wish to forget he ever was a medical student, so little do they know of the real as contra-distinguished from the traditional pursuits of that individual. Whatever ideas may have been held as to medical students as a class, we are at a loss to know why we still hear disparaging remarks when those engaged in this most noble and self-devoted study are mentioned. If the lay public draws its opinions from Albert Smith's "Medical Student," or from accounts of the exploits of persons of the Bob Sawyer type, they are in error, and do us a great wrong.\* Amongst large bodies of young men there must of necessity be black sheep, but from our own personal experience we can honestly say there are proportionally fewer in our own than in several professions on whom, fortunately for them, the stigma, however unfounded, has not fallen.

The London medical student of to-day is a well-educated, honest, hard-working gentleman. Well leavened with university and public school men, our ranks are daily strengthened by the force of education and example. The modern medical student ceases to be a type *sui generis*, beyond be-

\* A gentleman who graduated from a London medical school tells us that the Bob Sawyer type was not altogether extinct in his day.—Ed. B. M. & S. J.

ing the most hard-working, probably, of any class of students. His private life is much that of other young men; recruited from all ranks of society, sons of professional men, men of independent means or traders, his spare time is, in almost all instances, profitably or innocently employed, and his historical weakness for beer and tobacco is pretty much on a par with that of his fellows at the universities or in trade. Athletic sports nowadays form a considerable item in his list of amusements, and we can number in our ranks the most distinguished adepts either of the bat, the oar, or running-ground, to be found in England. To mention names would be out of place. All hospitals have their cricket clubs, most of them their rowing clubs, and all amalgamate in a united athletic club. The supposed predilection of the medical student for extravagant articles of dress is utterly a thing of the past, no difference being now discernible in this respect between him and any other class of young men. When some raw recruit, fresh from a country apothecary's surgery, arrives first in town, his dress is frequently of homely cut, but it is speedily replaced by some more fashionable garment. \* \* \*

The part of the house occupied of course makes a considerable difference in rent, but where the student has no more than a single bedroom, which serves him for sitting-room as well, he may obtain accommodation at from 5s. to 10s. a week, a bed-room and sitting-room from 10s. to 15s. a week, or where two men share a sitting room and have two bed-rooms—a very good plan—they would pay from 15s. to £1 a week between them in most cases, sometimes as much as 30s. There is generally some favorite chop-house or eating-house near, and we recommend the best, as it is always the most reasonable. Plain food, well cooked, with good ale, should be enough for any one. The price of such dinners usually varies from 1s. 6d. to 2s. Dinner in company is in every way preferable. The medical student, of all others, should eat a good breakfast, which should consist of meat or eggs, and tea or coffee, and the average cost of such a breakfast is about 6d. a day. Luncheon and tea come to about the same, supposing these meals are taken. Thus, then, his board and lodging would cost the student on an average about £1 15s. a week. Many of course "do it" on a great deal less; others living in better style may spend according to their means; but, from our own personal experience, the above may be considered a very fair average. Some of

the medical officers or teachers in the schools receive house pupils, who have board and lodging, and are generally looked after; such pupils are usually charged from 100 to 150 guineas a year.

ON TREATMENT OF THE PEDICLE AFTER OVARIOTOMY. By C. F. MAUNDER, Surgeon to the London Hospital, and to the Ward for Ovariectomy in Queen Adelaide's Dispensary.—How to treat the pedicle after ovariectomy has been performed, is one of the vexed questions of the day. The object of the succeeding few remarks is to suggest that too much consideration is given to the pedicle, and, consequently, the result of the operation may be improperly ascribed. It is, perhaps, natural that an important feature in an operation or surgical manipulation should attract a large share of attention, and yet that such attention be misplaced, the result of the proceeding being, in reality, a mere coincidence rather than as cause and effect. I am led to this conclusion by the fact that while on the one hand a large number of patients submitted to ovariectomy by one surgeon who treats the pedicle in a certain way, recover, yet, on the other hand, a great number of cases in which the pedicle is dealt with on another plan by a second surgeon, also have a small death-rate. Thus, it follows that one operator attaches great importance to the plan which has succeeded in his hands, and another operator to his peculiar method; the truth being that in all probability the cases would have done well or ill had either method of securing the pedicle been chosen. But, while making this statement, I must not be understood to think too lightly of the pedicle. The chief point to be considered in dealing with the pedicle is the prevention of hemorrhage, and, in so dealing, to use the means the most simple, provided only it be effectual. The most simple means is that which taxes the power of repairing an injury in the least degree; and if a surgeon had courage he might resort to *torsion*, retaining or not the cut pedicle at the wound. There is this objection to torsion, that when the patient rallies from the depressing effect of the operation some vessel or vessels previously unobserved may bleed. A similar objection applies to sealing the end of the pedicle with the hot iron and dropping it back into the pelvis; the eschar may become detached, and fatal hemorrhage ensue.

I am thus left to choose between securing the pedicle with a ligature and dropping

it back into the abdomen, or retaining it at the wound secured by clamp or ligature. In the first instance a foreign body is left in the abdomen, and this contrary to general principles, and possibly a source of irritation; while in the latter case the stump is repaired outside the belly, and probably with the least risk to the patient.

While, then, I advocate, as a rule of practice, keeping the pedicle outside the belly, exceptions will occasionally arise. But, as in every other instance in which an operation is contemplated, our great aim should be to endeavor to discover those signs and symptoms which may lead us to predict a favorable or an unfavorable result. I believe any special way of treating the ovarian pedicle, beyond the object of preventing hæmorrhage, to be a matter of comparatively little moment, and that it will not affect the rate of mortality to a noticeable degree. At present the secret either of success or of death seems to lie in the general condition of the patient.—*London Medical Times and Gazette.*

THE Compulsory Vaccination Act is working amid difficulties. The other day a woman brought her child to Bow street to exhibit it to the magistrate, in the words of the *Times* reporter, "literally covered with sores," which she attributed to vaccination, performed by the assistant of Mr. Bennett, of St. Giles's. Dr. Seaton has since investigated the case, and he calls the eruption eczema, although, on the first examination, Mr. Bennett was reported to have thought it chicken-pox. Dr. Seaton, in his report, acknowledges the possibility that the vaccination had some part in evolving the eruption, which he considers to have been a latent affection. He states that the child was flabby and ill-nourished, and that the operation ought to have been postponed. We fully concur in Dr. Seaton's account of the matter, but it cannot be denied that such occurrences afford evidence which the enemies of vaccination will not fail to make the most of against the policy of compulsory vaccination at the age of three months. Vaccination is a great boon to mankind, but it is nevertheless the origination in a child's system of a new train of morbid action. Enormous benefit as it is, then, it cannot be expected to be an unmixed one. There is no doubt that eczema does occasionally follow eruptive fevers of the varioloid group. We have lately had an opportunity of seeing at one of the metropolitan hospitals a case of unmanageable

chronic eczema of several years' duration, which followed confluent smallpox. It is only by impressing on the public mind the horrors of unmitigated smallpox—which, thanks to vaccination, the present generation can scarcely realize—that people will be induced to put up with the minor and occasional evils of vaccination.—*Ibid.*

THE STETHOSCOPE.—Dr. Paul Niemeyer, of Magdeburg, calls attention in the *Deutsche Klinik*, Dec. 5th, to the discrepancy between the theory and practice of Laennec. His theory was that the scratch of a needle on one end of a long beam could be heard by applying the ear to the other end, and that this depended upon the conduction of sound through the solid medium. In practice he used a roll of paper, subsequently a hollow wooden cylinder; that is, he used a medium of wood and air in ausculting.

Now it is an established fact that wood is a better conductor of sound than air; pine wood, according to Chladni and Lavart, conducts sound eighteen times better than air.

Niemeyer asks:—why do we, in the ordinary stethoscope, substitute a notoriously bad conductor for one notoriously good? In other words, why do we make that useful instrument hollow? He recommends the use of solid stethoscopes, made of that variety of pine wood which is used for the sounding-boards of musical instruments. The ear-piece must be in one with the body of the instrument, and not screwed on.—*Medical Press and Circular.*

INFLUENCE OF FORESTS ON CLIMATE.—In a paper lately read before the Geographical Society, is to be found some interesting information on this subject. Trees prevent evaporation of the water, and allow it to collect and remain as a source of permanent springs. When the trees are removed, the water runs off the land more quickly (not being retained and allowed to drop down gradually by the leaves), and is rapidly got rid of by the main streams. It also washes away the soil, and thus tends to exhaust fertility; but the most obvious effects are sudden and destructive floods, and injurious droughts in lands where there have formerly been good and equable supplies.—*Medical and Surgical Reporter.*

It is stated in the *Half-yearly Abstract*, by Messrs. Calvert, that sweet oil or castor oil is the best antidote to poisonous doses of carbolic acid.

## Medical Miscellany.

At the opening of the Army Medical School at Netley, Dr. Aitken, in reviewing the medical incidents of the late American war, laid stress on the fact that the hospitals, which were all under exclusive military control, were the most successful ever known.—*Dublin Med. Press & Circular*.

**CARBOLIC ACID SOAP.**—Mr. Crace Calvert has recently manufactured an admirable medicinal soap, containing twenty per cent. of carbolic acid and an equal quantity of glycerine. The soap is transparent and elegant in appearance, as well as being most useful for the purpose of cleansing and purifying the skin. *Experto crede*, we have used it for several months with increasing satisfaction, and have prescribed it largely among our patients. It is most useful in xeroderma and ichthyodes, in hyperidrosis and osmidrosis, and gives a freshness to the skin unequalled by any other soap. It is mildly stimulant, as well as depurative and disinfectant; and, used to the teeth and mouth, it is very refreshing. In exanthematous fevers, and fevers of every kind, it will be found very valuable.—*Ibid*.

**DEATH FROM BICHLORIDE OF METHYLENE.**—The first recorded death (as far as we are aware) from the inhalation of bichloride of methylene occurred this week in the Charing-cross Hospital. The patient, who had been greatly reduced by malignant disease of the jaw, was about to be operated on by Mr. Canton. The anæsthetic agent was being administered by Mr. Peter Marshall, who has had great experience in its use, and only a small quantity had been given, when the fatal collapse occurred.—*Med. Times & Gaz.*

**INSANITY ITEMS.**—In Brooklyn, Sept. 22, Mrs. Halpine, in a fit of insanity, took the life of her son, eight years old. She fastened the door of the room, and deliberately attacked him with a hatchet and crushed in his skull.

In West Concord, N. H., on the 21st, a church nearly ready for re-occupancy, after undergoing repairs, was burned. Loss \$10,000. An insane man is in custody, suspected of having set fire to the church.

An ex-policeman of Jersey City, Daniel McNamara, cut his wife's throat on Tuesday night, while laboring under a fit of temporary insanity. They resided in Jersey City. The wife will die.—*Med. and Surg. Reporter*.

**GLYCERINE AS AN APPLICATION TO BURNS** is recommended by J. Fuchs. Through the explosion of a spirit lamp the greater portion of his face had been covered with rather deep burns, which healed in a week by the immediate and oft-repeated application of glycerine, without producing blisters or festering, or leaving any scar.—*Schweiz. Wochenschr.* 1863, No. 6, from *Bresl. Gewerbebl.*—*Am. Journal of Pharmacy*.

**EXTRACT** of calabar bean, suspended in gelatine, forms convenient elastic sheets for application to the eye. The dose contained in a small piece should be 0.010 gr. of the bean, or 0.0005 gr. of the extract.—*Arch. of Pharm.*

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9 to 11, A.M., Boston Dispensary. 9-11, A.M., Massachusetts Eye and Ear Infirmary.

WEDNESDAY, 10, A.M., Massachusetts General Hospital, Surgical Visit. 11 A.M., OPERATIONS.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 10, A.M., Surgical Lecture.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9 to 11, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

TO CORRESPONDENTS.—Communications accepted:—Case of Triplets—Bibliographical Notice on the Anatomy of Prurigo.

**PAMPHLETS RECEIVED.**—The History of four Cases of Chronic Inversion of the Uterus, with an account of an Operation designed as a substitute for Amputation. By T. Gaillard Thomas, M.D., New York. Pp. 48.—Report and Remarks on a Third Series of one hundred Cases of Cataract Extraction by the Periphæric-Linear Method. By H. Knapp, M.D., New York. Pp. 29.

**DIED.**—In Buffalo, Oct. 18th, aged 84 years, Prof. James Hadley, formerly Professor of Chemistry in the Medical College at Fairfield, N. Y., and afterwards professor in the same chair in the Geneva Medical College. Dr. H. was born in the town of Weare, N. H. Of late years he has been in retirement from the active duties of his profession, but retained to the last the high esteem and regard of his medical brethren and of the community.

**MORTALITY OF MASSACHUSETTS.**—Such a report as the following we expect to have once a week via the Boston Morning Journal:—

Deaths in thirteen Cities and Towns of Massachusetts for the week ending Oct. 30, 1863.

Cities and towns.	Number of deaths in each place.	Prevalent Diseases			
		Consumption.	Fever.	Dysentery and Diarrhea.	
Boston . . . .	96	17	7	5	
Charlestown . .	14	3	0	0	
Worcester . . .	13	2	4	1	
Lowell . . . . .	10	6	0	0	
New Bedford . .	9	1	0	1	
Fitchburg . . .	9	3	2	0	
Chelsea . . . .	7	3	1	0	
Salem . . . . .	8	2	0	0	
Cambridge . . .	13	1	0	0	
Lawrence . . .	5	1	1	2	
Springfield . .	11	1	4	0	
Pittsfield . . .	4	1	0	1	
Newburyport . .	5	0	0	0	
	204	41	19	10	

No marked epidemic influence is known to exist in any part of Massachusetts. Two deaths from smallpox occurred in Springfield and two in Boston.

GEORGE DERNY, M.D.,

Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending October 30, 96. Males, 45—Females, 51.—Accident, 5—aneurism, 1—congestion of the brain, 1—disease of the brain, 3—cancer, 2—carbuncle, 1—cholera infantum, 7—consumption, 17—croup, 1—debility, 2—diabetes, 1—diarrhea, 3—diphtheria, 2—dysentery, 2—fever, 1—scarlet fever, 1—typhoid fever, 7—gastritis, 2—hemorrhage, 1—disease of the heart, 2—insanity, 1—intemperance, 2—disease of the kidneys, 2—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 5—inflammation of the lungs, 7—marasmus, 4—old age, 2—premature birth, 1—puerperal disease, 2—smallpox, 2—suicide, 1—unknown, 1—whooping cough, 1.

Under 5 years of age, 28—between 5 and 20 years, 12—between 20 and 40 years, 26—between 40 and 60 years, 15—above 60 years, 15. Born in the United States, 61—Ireland, 25—other places, 10.

## Original Communications.

## NOTES ON CHLORAL.\*

Report to the "Académie des Sciences," by M. DUMARQUAY, at the meetings of Sept. 6th and 21st, 1869.

[Translated by ROBERT AMORY, M.D., from the Bulletin Générale de Thérapeutique, Oct. 15, 1869.]

THIS substance, obtained by the reaction of chlorine upon alcohol, is liquid in the anhydrous state, though it becomes a solid when hydrated (*en s'hydratant*). It has an agreeable and slightly penetrating odor.

I owe to M. Follet, pharmacist, thanks for obtaining this substance in a pure state, and it is with his assistance that I have accomplished the experiments which will be here related.

We have experimented upon a large number of rabbits, and have used solutions well triturated; we have injected into the cellular tissue of our animals from twenty centigrammes of this substance up to two grammes, without causing the death of any of them. All, after fifteen to twenty minutes, have fallen into a state of complete resolution, as if profoundly asleep. This sleep lasted two or three hours, the muscular relaxation and prostration of these animals being extreme; all, however, were awaked, and after two hours showed none of these signs. The same rabbit was used in many experiments.

If the animals put to sleep by the chloral are attentively observed, it is evident that the mucous membrane of the eye and eyelids (conjunctiva) are injected; the ears

\* Heretofore we have seen but one side of the question. If Liebreich's theory, viz., that a drug can be decomposed in the blood into its constituents, is correct, it opens a new phase of the physiological action of drugs, before this unknown and disbelieved. As these experiments exemplify another way of accounting for the action of "the new anæsthetic," it is proper that it should be made known. There may possibly be as much propriety in saying that the state of anæsthesia produced by ether, chloroform and nitrous oxide, are produced by some decomposition or alteration into one and the same primary form, as in accounting for the action of chloral by its decomposition into chloroform and formate of soda. I have been taught that drugs do not undergo chemical transformations after their absorption from the *prima vie* into the blood.

become vascular to a most remarkable degree. It can readily be presumed that these animals have undergone the section of the great sympathetic, as in the beautiful experiment of M. Bernard. It is necessary to add that this great vascularity of the ears is not accompanied with an increase of temperature, but even with a decrease of one and a half degrees (C.). During the period of chloralization their sensibility is greatly exalted. The slightest pinch of the tail, of the ears, or of the lips, provokes in these animals disordered motions and plaintive cries sufficiently prolonged. The same pinching in the healthy animals causes nothing similar; they seem scarcely to perceive them. The cardiac pulsations become quite frequent, so as with difficulty to be counted.

During all this time respiration does not vary, and the rabbit, put to sleep by chloral, breathes as if the sleep were natural. The odor of the exhalations of the chloralized animals is easily recognized as that of chloral, from which it may be supposed that this substance is not decomposed completely (if it is ever decomposed) in the blood. If the animals experimented upon are opened alive, a congestion of the abdominal vessels is observed. The mesenteric vessels are turgid; the mucous membrane is injected, especially that of the trachea. A healthy rabbit, taken by way of comparison, also shows this extreme vascularization. The central nervous system, viz., the cerebrum, the cerebellum, and their membranes, are strongly injected; it is the same with the spinal axis. I cannot appreciate the difference in the great sympathetic on account of its small size. The microscope alone can show the modifications undergone in the nerve-cells. The muscles are very vascular—they even become of a bright red color (*rutilant*); it seems to me that the arterial blood has acquired a violet tinge.

What becomes of the chloral in the blood? For my own part, I do not think it is decomposed; and I think it is eliminated without any important modification by the respiratory passages.

As the agent we are studying has the property of being decomposed as an alkaline lye (*lessive alcaline*), the Germans have immediately admitted the fact that it is decomposed in the blood, which is slightly alkaline, and that it is to the small quantity produced by this decomposition that the anæsthetic phenomena observed by them is attributed. We cannot admit this simple method of reasoning; because far from being, like chloroform, an anæsthetic, chloral produces hyperæsthesia in a marked degree. Moreover, it is well known that the action of chloroform continues for a few minutes, whilst that of chloral persists entire hours. As may be seen, these two considerations oppose the theory of the Germans.

These physiological questions remain to be solved. The applications of this substance to therapeutics must also in the future be determined. We have thought it right to publish these researches, as they differ in their results from those of M. Liebreich. To sum up:—

- 1st. Chloral is the most powerful agent to produce muscular relaxation; and
- 2d. The most rapid of all hypnotics.

I have the honor to communicate to the Academy of Sciences the continuation of my researches upon chloral. This time man in a state of disease has been the object of my experiment. Twenty times I have administered chloral, associated with syrup of tolu. The solution was of such a nature that a teaspoonful of this syrup contained 1 gramme (a little more than gr. xv.) of chloral. The patients easily took this preparation; the taste was not in the least disagreeable, but yet left a sensation of acridity in the pharynx. They have easily borne the administration and no accident has been determined. The dose has varied from 1 to 5 grammes. In the twenty experiments, six are negatives in their result with regard to sleep. The obstinate ones have, moreover, been men. The patient who took 5 grammes (77 grains) is a man, æt. 35, whose knee I was about to cauterize. I could only obtain a slight sleep of three quarters of an hour. On the other hand, a woman, enfeebled by an organic disease of the uterus, has slept at two different times, both in the afternoon, a peaceful sleep, with a single gramme of chloral. It may be said, *generally*, that feeble individuals, debilitated, are much more sensitive to the action of this agent, and that the duration of its action, or the length of sleep, is equally in agreement with this feebleness.

In fourteen cases where the sleep has been complete (twelve women and two men), it has happened from fifteen to thirty minutes after the ingestion of the medication. The sleep is light, and does not at all resemble that produced by chloroform. The slightest noise awakes the patient, but in an instant they are again asleep. The very slightest prick, a simple pressure, draws from them a cry; they immediately withdraw the portion of the body pinched or pricked. I would not dare to affirm that there may be, in this case, hyperæsthesia of the skin; but I can certify that the cutaneous sensibility is preserved, whatever may be the intensity of the sleep. It is, consequently, impossible to use this sleep in surgery; nevertheless, I have used a large portion of this syrup for a lady upon whom I had performed a serious operation; immediately after the dressing of the wound, she took 4 grammes of chloral, and immediately fell into a sleep which lasted till the afternoon.

But if the sleep was calm and tranquil in several of our patients, it was otherwise with others, who were agitated, troubled with dreams and hallucinations; this was especially noticed in females who had serious organic and painful disease of the uterus, and had been accustomed to taking large doses of opium. In this case, sleep was sometimes long, but excited, mingled with cries, and, on waking, the poor patients incessantly called for their habitual injection of morphine. This circumstance proves, once more, that if the chloral is hypnotic, it is not anæsthetic. It is necessary to add that the patients do not seem to have any knowledge the next day of their agitation on waking. \* \* \* \* The pulse has not varied many pulsations. The same holds good for the respiration; as for the animal temperature, it has been depressed some tenths of a degree (C.) at the commencement of the experiment, to immediately rise to the original height. In some cases the urinary secretion has not been augmented. Some patients have involuntarily urinated in their beds. \* \* \*

The deductions at present to be drawn are:—

- 1st. Chloral has a marked hypnotic action, especially on feeble and debilitated individuals.
- 2d. The duration is in direct agreement with this feebleness.

- 3d. The sleep provoked is generally calm, and is excited only in those patients who are a prey to lively pain. This leads me to counsel its use in those diseases



where it is desired to bring on sleep and muscular relaxation.

4th. Finally, this agent can be given in doses of 1 to 5 grammes without determining any accident.

#### FATAL CASE OF POST-PARTUM HÆMORRHAGE.

Nov. 24th, 1868, Mrs. D., æt. 34, was delivered of her sixth child. The labor was easy, and nothing that was observed at the time prognosticated hæmorrhage except its rapid conclusion, a single pain carrying the head through the lower strait and delivering the whole body of the child. The after-birth, above the average size, came away in ten minutes with slight traction of the cord, and was passed unexamined into a waiting vessel. No hæmorrhage followed, and the uterus, with a little delay, contracted firmly. A compress was laid on the womb and a roller above it, and a firm binder pinned tightly over them. I remained two hours in the house, and then left her comfortable and in high spirits. When I made my second visit, twelve hours later, I found that she had been flowing, but had then ceased. Prescribed lead and opium, and directed the nurse in regard to external applications, should hæmorrhage recur, and particularly directing that I should be called immediately should any trouble arise not readily under their control. A week passed by and I heard nothing from my patient, and my anxiety led me to visit her. Her pulse and countenance admonished me that she had lost more blood than was fit, but she directly affirmed that she had not flowed more than was proper, that she was convalescing finely, and knew of no reason why she should not be up in due time.

I left her with some misgiving, but as she was a lady of excellent sense, and had been confined five times before, I thought she ought to be a competent judge of suitable convalescence. Dec. 6th I was sent for in haste, and told that she was flowing, and been for sixty hours at intervals. I found her pulseless at the wrist, with a deathly pallor of the countenance, lying on her back with head low and feet raised, and altogether in a state of almost complete ex-sanguination. The womb was soft and reached to the umbilicus. I was immediately satisfied that the excessive hæmorrhage was due to a portion of retained placenta, but to have attempted its removal by the hand was then out of the question. My only hope was to check the hæmor-

rhage, and by stimulants and nutrition to rally her so she could bear the introduction of the hand. I checked the hæmorrhage, and left her with a fair pulse, after prescribing the free use of stimulants and beef-essence. The next day she was better, and each day until the 12th she was reported by the nurse as comfortable and improving. On the 12th I was summoned in haste, and found her in a state of partial syncope, nauseated and rapidly sinking. From this she rallied, and I was then convinced that her only hope was in freeing the womb of its contents by the hand. The case was plain, but the operation would be attended with the utmost peril, and I called an able physician to be present. He approved the plan, and, at the request of the family, operated, removing a small quantity of pieces of the membrane and some blood clots, made a favorable prognosis, and prescribed for the next twenty-four hours. The next day she was worse, and I removed from the vagina a gill of pieces of the placenta. I forced the womb to firm and solid contraction, so that it was scarcely perceptible in the pelvis.

Dec. 14.—She is failing rapidly. A slow hæmorrhage continues. Lead, opium and gallic acid internally, with brandy, eggs and beef essence, ice externally, ice water injections per rectum and per vagina, is now the treatment. Summoned counsel again and staid all night.

Dec. 15.—She died this afternoon, after thirty hours of constant application of the most powerful hæmostatic and restorative remedies.

Results of the *post-mortem* examination. —A portion of placenta the size of a large hen's egg was found firmly amalgamated with the womb, and its removal would have been a severe operation under the most favorable circumstances.

I subsequently learned that she had passed a large chamber-vessel full of blood clots and pieces of placenta at two sittings within three days after delivery, and yet I was told that no blood passed in that time, and I knew there was no retained blood.

*Advice.*—Examine carefully every placenta, and trust to your own convictions sooner than to the statements of others.

LONGEVITY.—Hippocrates died at the age of 109; Galen lived to be 104; Solon and Thales 100; Zeno 98; Diogenes 88; Plato 94; Lycurgus 85; Sophocles more than 100; Asclepiades also; Juvenal 100; Newton 85; Fontenelle 99; Buffon 81; and Voltaire 84.

## Selected Papers.

### ON CERTAIN INFLUENCES OF SCHOOLS INJURIOUS TO HEALTH.

By Prof. RUD. VIRCHOW.

THE injurious influences of schools upon the health of the pupils have frequently, especially since the end of the past century, attracted the attention of physicians and teachers, now on this, now on that point, yet usually without being investigated more exactly, in a truly scientific manner. \* \* \* Only very few attempts were made by means of systematic researches to gain a basis of real facts for forming opinions, and it must be acknowledged a very great advance that a beginning has been made at present in certain directions to procure statistics of what may be called the school diseases. Only extensive, scientifically certain, *comparative* statistics will enable us to judge with full confidence what affections or diseases are produced by the schools, and what means should be adopted to prevent them. Where this basis is wanting, there are still certain general scientific rules, which are applicable to schools as well as to other institutions of society, but it cannot be denied that, in applying them, important conditions may very easily be overlooked or wrongly estimated.

The following report will endeavor to keep the two groups as distinct as possible, and carefully separate those affections well established in fact from those merely guessed at. In first line, as regards reliability of actual demonstration, we have :—

*Affections of the Eye, especially Nearsightedness.*—The first (though still inaccurate, and in no wise methodical) endeavors to establish by statistics the supposed influence of schools upon the development of nearsightedness were made in the beginning of this century by the Englishman Ware. Since then, similar researches have been made in different parts of the continent, particularly in Germany, partly official, partly by private persons, but almost never logically and systematically. Only the investigations of Dr. Hermann Cohn, of Breslau, both as regards the number of persons examined, and as regards the method and accuracy of observation, have assumed a shape corresponding to the demands of modern science, and may be considered as exceedingly valuable, nay, in a certain sense as decisive. \* \* \*

The total result was found to be that,

among the 10,060 scholars, vision was not normal in 17·1 per cent., but that the latter figure was very unequally distributed, namely :—

In the village schools	5·2 per cent.
“ city primary schools	14·7 “
“ middle schools	19·2 “
“ girls' high schools	21·9 “
“ “Real” schools	24·1 “
“ gymnasia [high schools]	31·7 “

Among the 410 students examined there were found even 68 per cent. with abnormal vision (ametropia).

Now leaving out of present consideration hyperopia, astigmatism, and the actual diseases of the eyes, as of secondary importance, and considering only nearsightedness proper (myopia), still we meet with the distressing result, that in all nearly 10 per cent. of the children are nearsighted, viz. :—

In village schools	1·4 per cent.	
“ city primary schools	6·7 “	} city schools 11·4 pr. ct.
“ girls' schools	7·7 “	
“ middle schools	10·3 “	
“ “Real” schools	19·7 “	
“ gymnasia	26·2 “	
And among students	60·0 “	

The regular increase here presented in the aggregate is repeated in a remarkable manner in taking separate account of each school according to classes :—

	VI.*	V.	IV.	III.	II.	I.
Primary schools	—	—	2·9	4·1	9·8	9·8
Gymnasia	12·5	18·2	23·7	31·0	41·3	55·8

The unfavorable opinion of Dr. Cohn is therefore, unfortunately, incontrovertible; the less so since he shows, by extensive tabular evidence, that not alone does the number of the nearsighted increase from class to class, but the degree of myopia likewise rises. \* \* \* \* \* The myopia in these schools, therefore, is on the whole *progressive*; it pursues that dangerous path which gradually leads to actual asthenopia.

Dr. Cohn justly disavows the opinion that the enormous frequency of myopia among school children should be ascribed solely and exclusively to the school. Outside of the school, even under the parental roof, many unfavorable conditions are evidently operating. \* \* \* \* \* Nevertheless it may be affirmed with full assurance, that persons of the age of scholars in the first class of gymnasia do not average 55 to 56 per cent. of nearsighted, nor are there 60 per cent. among persons of the age of students. And though we may concede that insufficient illumination, fine print and fine handwriting, the habit of bending forward, &c.,

\* VI., or IV. respectively, being the lowest, I. the highest class.

operate injuriously in domestic occupations also, it must yet be acknowledged that some of these disadvantages at home arise from habits of the school, or at least that the school does not sufficiently oppose the acquiring of these habits, but rather directly favors some of them.

Besides the question of illumination and light of the school-room, Dr. Cohn has principally examined that of the furniture, *i. e.* desk and seat, and believes himself justified in condemning the present arrangement as positively injurious. This arrangement, he says, compels the pupils to look at print in close proximity and with their heads bent forward. This requires, on the one hand, a greater activity of the muscles of accommodation in the eye, causing in its part an increase of hydrostatic pressure in the posterior part of the eyeball and elongation of its axis; and, on the other hand, the bending forward of the head causes obstruction to the flow of blood from the eye, congestion of the eye, and hence also increased pressure in the fundus of the eye. Both circumstances together are the cause of the nearsightedness. \* \* \*

2. *Determination of Blood to the Head.*—In the previous section the fact has already been spoken of, that the inclined position of the head causes congestions. \* \* \* \* Other conditions operate in the same direction. In bending the head forward, the trunk naturally is also inclined forward, and the more so the lower the desk. From this results a certain compression of the abdomen, with consequent impaired activity of the diaphragm, the most powerful muscle of respiration. But incomplete inspiration opposes the return of blood from the veins of the neck into the chest.

Added to this is the circumstance that during close attention respiration is incompletely performed, the more so the less the demand for respiration is directly excited by one's own speaking. \* \* \* \*

All these circumstances favor what is called *passive* or *mechanical* congestion, by impeding the return of venous blood. But there is, in school, a very efficient cause also for so-called *active* congestions to the head, *i. e.* increased flow of arterial blood, and that is the active labor of the brain. \* \* \* \*

Among the various affections arising from these partly passive, partly active congestions, the following three have of late given occasion for statistical research.

a. *Headache.* Guillaume (*Hygiène scolaire*, Genève, 1864), who designates it plainly as "*céphalalgie scolaire*," found,

among 731 pupils of the Collège municipal in Neuchâtel, 296 suffering frequently from headache—over 40 per cent. Girls were more often afflicted with it than boys, 51 per cent. of the former to 28 per cent. of the latter. \* \* \* \* Becker (*Luft und Bewegung zur Gesundheitspflege in den Schulen*, Frankfurt a M., 1867) examined 3564 pupils; \* \* \* \* 974 of them, or 27.3 per cent., suffered more or less from headache. \* \* \* \* In the first class of the gymnasium 80.8 per cent. complained of it. Becker concludes from his figures—what is not quite accurate—that the number is smallest in the first school years, and increases with longer attendance, greater number of hours of attendance, and the amount of mental exertion required. As an auxiliary cause he mentions too small rooms.

It is necessary to mention another circumstance for consideration. Deville and Troost found that certain gases, especially carbonic oxide, are capable of passing through red-hot iron, a circumstance not rarely confirmed in school rooms heated by iron stoves. Headache, dizziness, trembling and similar accidents are the consequences of a slight operation of this so poisonous gas. Dr. Oidtman does not hesitate to assume chronic poisoning by carbonic oxide as comparatively frequent in his part of the country, which is rich in iron stoves.

b. *Hæmorrhage from the Nose.* Guillaume found it frequent in 21 per cent.; more frequent in boys (22 per cent.) than in girls (20 per cent.). \* \* \* \* Becker found only 11.3 per cent. subject to epistaxis; accurate details are not given, but he states that the hæmorrhages are most frequent in the higher classes of the gymnasium, in the girls' high school and one private school—in those schools, as he says, the pupils of which sit longest in school and move about least in the open air.

c. *Goitre* [Guillaume calls it *goître scolaire*, the scholars call it "*gros cou*."] He found it in 56 per cent.—58 per cent. among boys, 64 per cent. in girls. It frequently disappears during vacations, and becomes permanent only at a later date, but is sometimes found in girls of 8 years after one year's attendance. Thus far the data of Guillaume stand alone, and it is doubtful if they are entitled to general acceptance, though it is true that the female sex and youth predispose to goitre, and that dilatation of the cervical vessels engenders a predisposition to this affection.]

Headache and bleeding from the nose, however, are affections sufficiently well

known to physicians and many parents as not rarely accompanying attendance at school. The observations before us do not indeed suffice for drawing absolutely certain conclusions \* \* \* nevertheless we cannot but acknowledge even now, that the school favors, and perhaps often causes, these conditions, and that their frequent occurrence should be a subject of serious consideration.

At this point the question naturally suggests itself as to the influence of congestive states, such as have been spoken of above, in relation to the mental faculties of the pupils. In fact, it cannot be doubted that such conditions are often combined with confusion, incapacity for thought and mental labor, and that, when they become habitual, they may engender dangerous predispositions of the brain. \* \* \*

3. *Curvatures of the Spine.* Not a few among the physicians who have paid special attention to the school question, and a great number of orthopædists, maintain the opinion that the school bears a large share of the blame in the production of deviations of the spinal column. Especially the lateral curvature, so-called scoliosis, and chiefly the form known as "habitual scoliosis," is here accused. Fahrner says: "Since almost 90 per cent. of these curvatures originate during school years, and the curvature corresponds exactly to the posture in writing, we certainly are justified in accusing the school as the main cause." Guillaume illustrates the comparison of the common form of scoliosis to the writing posture by a drawing, undoubtedly correct in itself, and adds that he found, among 731 pupils, 218 (*i. e.* almost 30 per cent.) showing a deviation of the spine.

The experiences of orthopædists unanimously agree in that the majority of scolioses originates during the period of obligatory attendance at school. \* \* \* It can be asserted with safety, that the common scoliosis is a developmental disease of the age of obligatory attendance. It is less certain if the school as such be the chief cause of this disease. On the one hand, comparisons are wanting with such countries and ages where school attendance is not obligatory. The testimony of the Primary School Committee of New York, which Guillaume adduces, has a certain value, but it is not decisive. On the other hand, comparison of many schools would be necessary on this point. \* \* \* A special consideration against the implication of the school is the great preponderance of scoliosis in the

female sex. [Guillaume counts 18 per cent. among boys and 41 per cent. among girls. This of course includes many slight cases. The experience of orthopædists, chiefly on severer cases, is more striking. Klopsch reckons 84-89 per cent. of all scoliotic persons to be in females, &c.] With these figures before us it cannot be doubtful that the school is not the only cause of scoliosis; nay, it must be conceded that it is not even the chief cause. \* \* \*

From consideration of the evils spoken of, even though they are only in part to be ascribed to the school, very definite obligations of the latter may be deduced. On the one hand, the pupils, especially the female pupils, must be appropriately seated and carefully watched in regard to posture and carriage; on the other hand, they must be offered well-timed opportunity by gymnastics to give proper exercise to their limbs.

4. *Affections of the Organs of the Chest.* \* \* \* Selecting [from the accurate mortuary tables of Berlin] the ages of obligatory school attendance, we meet with a rapid rise of the mortality from pulmonary and laryngeal phthisis in the ages from 10 to 15 years, which began in the preceding period of from 5 to 10 years of age, and is considerably augmented still in the later period of from 15 to 20. There occur at the age of

	<i>Pulm. Phthisis.</i>	<i>Consumption.</i>
5-10 years	4.81	8.93
10-15 "	12.96	7.90
15-20 "	31.88	47.4 pr. et.

of the deaths from all causes, without considering scrofula and many other nearly related categories. This result is certainly very remarkable, especially when we consider that, in persons of these ages, only typhoid fever and cholera afford mortality figures at all approaching the above.

The mortality, it is true, cannot be ascribed to attendance at school alone; \* \* \* nevertheless the fact must not be underrated. Circumstances of moment indicate that the school contributes much towards it. The following influences more especially may be counted as injurious:—(1) vicious air, rendered so by the presence of many children; (2) frequent "colds" caused by the change from the hot school-room to the free and cool air outside, by draughts from windows and doors, &c., whereby inflammations of the throat and chest are produced in great number; (3) the dust of the school-rooms; (4) the fact that the respiratory movements are impaired by the long-continued sitting.

[The author here mentions that from re-

cent investigations we are no longer able to identify phthisis with tuberculosis, but that the former is due to a variety of processes, all of which finally produce ulcerations of the lungs.] The majority of these begin with simple catarrhal and inflammatory processes which owe their origin to external agents, especially cold and the inhalation of irritating substances (dust, carbon, &c.). Their continuation is favored by low respiratory movements, which effect accumulations and retention of excretory matters; furthermore, by the viscosity and perishable nature of these excretory substances, which are decomposed and inspissated, and on the character of which the nature of the inspired air has no less, perhaps even more, influence than the quality of the food; finally, by the continuation or repetition of the irritations.

This brief synopsis will suffice to show how dangerous may be a school with defective arrangements and inefficient superintendence, and how much reason there is to fear that a part of the fatal results of phthisis in the school ages may be attributed to the school as such, and that in part even the unfavorable termination taking place after school life may be laid to the school period.

5. *Affections of the Abdominal Viscera.*

6. *Contagious Diseases.*

7. *Injuries.*

[We pass over these sections for want of space, because they are of less importance, and no accurate statistical data are adduced. The author finally enumerates the following known injurious agencies and causes of diseases pertaining to schools, to which attention should be directed:—]

1. *The air in the school-room*, the quality of which is determined by the size of the room, the number of pupils, the mode of heating, the ventilation, moisture of the floor and walls, dust (cleanliness).

2. *The light*, as determined by the situation of the building and room, the size of the windows and their relation to the desks, the color of the walls and surroundings, artificial light (gas, oil).

3. *The sitting* in the school-room, especially the relations of desk and seat, size of the seats, their arrangement, duration of sitting.

4. *Bodily exercise*, especially playing, gymnastics, swimming, their relations to sitting and to the purely mental labor, their arrangements and superintendence.

5. *Mental exertion*, its duration and variety, the individual amount, the arrangement and duration of recesses and vaca-

tions, the extent of home and school exercises, the date of the commencement of obligatory attendance, &c.

6. *The punishments*, especially corporal.

7. *The water for drinking.*

8. *The privies.*

9. *The means (implements) of instruction*, especially the choice of school books (size of type), and objects of illustration.—*St. Louis Med. and Surg. Journal*, from *Virchow's Archiv*.

## Bibliographical Notices.

*Zur Anatomie von Prurigo. On the Anatomy of Prurigo.* By DR. RICHARD H. DERBY, of Boston. With a Plate. Read before the Imperial Academy of Sciences, Vienna, February 18, 1869.

Any contribution to our limited knowledge of an affection so harassing as Prurigo should be gratefully received. Fortunately it is with us a disease of rare occurrence; although if the loose definition so generally applied to it, and which confounds it with ordinary Pruritus of the skin, be accepted, this remark may be received by some with surprise. Prurigo and Pruritus have in reality nothing in common but their initial letters, and the itching, which in the former is only a symptom, in the latter the whole disease. In Prurigo the itching arises subsequently to and in consequence of well-marked and characteristic anatomical changes in the tissues of the skin; in Pruritus the itching precedes and gives rise to a great diversity of structural changes. Prurigo has always the same history, affects only certain regions, and is characterized by one definite and constant efflorescence. Pruritus is only another name for itching; it may affect therefore almost any region of the surface, and has no characteristic and constant form of eruption, but differs in each case according to the locality affected and its individual history. Its cutaneous phenomena are chiefly those produced by scratching, and are consequently the direct result of external, mechanical irritation. It is in fact generally no disease at all, but only a symptom of several affections of the skin. In Prurigo, on the other hand, the efflorescence, which as just stated consists of changes taking place in the deeper tissues of the skin, is only slightly modified by the subsequent irritation it produces. Moreover, Pruritus is one of the most common affections of the skin, while Prurigo is so

extremely rare that it forms not one case in five hundred of cutaneous diseases treated in private practice.

This confusion in nomenclature, or rather this entire disregard for the principles of diagnosis and classification, has led some writers to place Prurigo among the so-called neuroses of the skin. This is a fashionable term of late loosely applied to all sorts of cutaneous affections. A neurosis of the skin is a lesion primarily affecting nerve-tissue and giving rise in consequence thereof to impaired or modified nerve action and subsequent structural changes in the surrounding tissues. Unless this definition be strictly adhered to almost every disorder of the skin or other organs may be called a neurosis, for diseased as much as healthy vitalaction is regulated by nervous influence and limited by nervous distribution. A blush is as much a neurosis as the chromidrosis to which attention was called in a recent editorial paragraph of this Journal. But to class Prurigo among the neuroses simply because itching is one of its secondary phenomena is an absurdity, unless we include in the same category, Eczema, Psoriasis, Scabies, etc., or in other words divide skin diseases into two classes, neuroses those which itch, non-neuroses those which do not itch.

Now it is upon such investigations as this of Dr. Derby that we rely to upset this and the many other one-sided theories which each new writer upon skin diseases feels bound to put forth in lack of other new material, and to demonstrate that pathological anatomy is the only true basis of classification. Our previous knowledge of the minute anatomy of Prurigo was slight and unsatisfactory. The papillæ had been found enlarged and new cells had recently been observed in profusion penetrating some of the cutaneous tissues, but nothing distinctive or peculiar to this affection had been noticed before these observations of Dr. Derby. These were undertaken under the direction of Dr. Biesiadecki, at first in Vienna and subsequently at the Krakauer Pathological Institute. Portions of skin affected were removed from seven patients, and after being hardened by chromic acid sections were made through the efflorescence, which by the microscope presented the following appearances.

1st, In prurigo there is uniformly a disease of the hair. From the outer root-sheath projects a growth, varying in length, consisting of epithelial cells, and closely united with the root-sheath. It insinuates

itself between the muscular fibres of the *arrector pili*.

2d, The *arrectores pilorum* attain an unusual development. Through the increased traction these exert on the hair result, on the one hand, a more vertical position of the hair (goose-flesh); on the other a hernial protuberance of the inner wall of the hair follicle and the outer root-sheath.

3d, A serous exudation takes place in the vicinity of the diseased hair, infiltrating the tissue of the corium and the papillæ, and making its appearance as a clear or slightly bloody drop, on puncturing the papule.

This discovery, moreover, explains the absence of the papules of prurigo in places devoid of hair, such as the hollow of the hand and sole of the foot; and their infrequent occurrence in places almost destitute of hair, such as the flexure of the extremities.

The cells which form this projection from the root-sheath are continuous and identical with those of the latter. The hair bulb also shows the presence of numerous round and shining cells, and the hair itself becomes thinner and is more easily pulled out.

These observations are very interesting, giving as they do for the first time a satisfactory explanation of the anatomy of an affection which has been but little understood. The plates which accompany the text are executed with admirable clearness and effect. This little monograph, with the similar investigations of Dr. Geddings of Aiken, S. C. upon the anatomy of Lupus erythematosus, and of Dr. J. C. Warren upon that of Keloid, also published in the proceedings of the Vienna Academy during their residence in that city, are important contributions to Dermatology and honorable alike to the authors and their instructor.

J. C. WHITE.

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CRIMINAL PERFORATION OF THE UTERUS.—At a recent meeting of the New York Pathological Society, Dr. Finnell exhibited the uterus of a woman five months pregnant, on whom an abortion had been produced, with the effect of causing a large puncture of the fundus of the womb, through which a very thick catheter could be passed. The dying woman refused to divulge the name of the person who had operated upon her.—*New York Medical Gazette*.

# Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 11, 1869.

## LEUCOCYTHÆMIA.

(Concluded from page 248.)

To return to MM. Ollivier and Ranvier. They go on to say:—The study of the particular conditions of the capillary circulation in leucocythæmics deserves in the highest degree the attention of pathologists. It furnishes the key of certain phenomena which have been hitherto explained too easily, and without proofs, by the excessive fluidity of the blood, by the cachectic state, &c. Thanks to the well-observed fact of the distention of the capillary vessels by the white globules, with the hæmorrhage which is at times the consequence, we are able to give the physiological explanation of, and show the connective chain between many of the symptoms of leucocythæmia. [To this end the author proceeds to pass in review the principal organs of the system, as follows.]

The accumulation of white globules in the capillary vessels of the brain produces, in all probability, symptoms analogous to those of anæmia—that is to say, headache, buzzing in the ear, disorders of vision, tendency to lipothymia, &c. In a later stage these symptoms are aggravated; then somnolence sets in, and finally coma. When the tension becomes so great as to bring about rupture of the capillaries the blood is effused into the cerebral pulp, or into the arachnoid cavity; and in that case all the symptoms of cerebral or meningeal hæmorrhage are observed. Furthermore, sanguineous effusions are not confined to the brain or its membranes. There was in the case of leucocythæmia presented to the Academy of Medicine by M. Blache, in 1856, a hæmorrhage of the spinal meninges, which extended from the third dorsal vertebra to the sacrum.

At the outbreak, or during the course of a leucocythæmia, there is frequently more or less dyspnœa, amounting in some instances to orthopnœa, while yet neither the clinical or [non-microscopical] *post-mortem*

examination of the lungs assigns a reason for it. All the authorities mention this dyspnœa, but without undertaking to account for it. In our opinion it recognizes a double causation: on the one hand, a diminution in the number of the red globules, which, as is well known, are veritable agents of hæmatosis; on the other hand, an accumulation of white corpuscles in the capillary system of the lungs. The proof is furnished both by the state of the blood in leucocythæmia, and by the histological examination of the pulmonary parenchyma. The capillaries of the alveoli are dilated by accumulations of white corpuscles, and consequently are found bulging. This phenomenon we were able to demonstrate very clearly in the lungs of the patient who was the subject of our first case. In other instances, the dyspnœa is connected with circumscribed lesions of the lungs, *i. e.* lymphatic products. These consist of nodules of a whitish color, of the size, on an average, of a lentil, and giving, when pressed upon, a quite decided feeling of resistance. They have no fixed seat, a point which should never be lost sight of in examining the lungs of a patient affected with leucocythæmia. And it is no less important to know that they are liable to undergo a kind of fusion, and thus lead to the formation of cavities. These characteristics, taken together, were probably what led the first observers of the disease in question to consider these bodies as masses of tubercular granulations. And that explains how it was that Ehrlich, among 98 cases of leucocythæmia collected together in his inaugural thesis, noted twelve times the existence of tubercles and pulmonary infiltrations. Böttcher was the first to throw doubt on the frequency of this complication. [But, say MM. O. and R., he failed to grasp the true interpretation of the tuberculiform nodules, in that he made them to consist of the proliferation of connective tissue. They ask if, while rejecting the idea of pulmonary tubercles, we may not feel assured that we are dealing with lymphatic products.] \* \* \* \*

One of our cases shows in the clearest manner that in the lungs of leucocythæmics there may develop lesions similar

at first sight to masses of tubercular granulations. These are small tumors, which are nothing else than apoplectic accumulations. Confusion is here the more easy that these accumulations, composed mostly of white corpuscles, are devoid of the color which is usual in apoplectic effusions. Hæmorrhage takes place in miliary masses in the lungs, as well as in other organs. White corpuscles collect in the capillaries, and end by bursting them. Once outside the vessels, and effused in the alveoli, they undergo granulo-fatty degeneration, and may thus constitute caseous masses. It is presumable that if these last should be eliminated they would leave cavities behind. Thus we see that in leucocythæmics there may be pulmonary pseudo-tuberculosis. A case recited by Böttcher, together with one of ours, proves this very clearly. But, on the other hand, it cannot be denied that veritable tubercles coëxist with leucocythæmia. Our second case seems to come very properly within this category of coincidence.

In almost all cases of leucocythæmia, the pulse has been found weak and rapid. These characteristics—the frequency particularly—are not referable to the obstruction to the capillary circulation. We know, indeed, according to the investigations of Marey, that the greater the obstacle to overcome in the capillaries, the less is the number of cardiac pulsations, and the less also is the amplitude of the pulse. But, mark well! it is not only the peripheral circulation which is disturbed in leucocythæmia. The cardiac muscle is equally affected, and thence phenomena take place in this organ which must entirely alter the laws laid down by Marey. The obstruction to the circulation in the heart may determine an alteration in its muscular fibres. Thus in our first case, the latter had undergone fatty degeneration. Recollect, too, the diffused hæmorrhages of the pericardium, of the endo-cardium and of the heart-muscle. It is probable that these are also not without some influence upon the action of the organ.

It is not uncommon to find the gums altered in leucocythæmia. The alterations consist most often in tumefaction, softening

and tendency to bleeding, to such an extent that one might suppose, at first sight, there were veritable scurvy. Mosler published, in 1868, a case of this kind entitled *leucocythæmic pharyngitis and stomatitis*. But, in this instance as in others, no microscopical examination of the parts was made. We have seen that in our first case the gums were of three times their normal thickness. They were entirely colorless, but painless under pressure, and showed no trace of ulceration or suppuration. There were wanting, then, all the phenomena necessarily characteristic of real inflammation—of leucocythæmic stomatitis. Histological examination showed, in the first place, that the swelling of the gums was due either to an accumulation of white globules in the capillaries or to interstitial hæmorrhage; in the second place, that there was at no point new formation of adenoid tissue. In a word, this swelling presented a most striking analogy to the little tumors found in different organs of the same individual. We would also call attention to the fact that in our patient, as in that of Mosler, the follicles of the base of the tongue were enlarged.

Hæmatemesis and intestinal hæmorrhage—greater or less in quantity—have also been sometimes met with. These hæmorrhagic discharges show themselves sometimes in individuals whose gastric or intestinal mucous membrane is the seat of ulcerated lymphadenomata, and then their occurrence presents nothing peculiar. Sometimes, on the contrary, they take place in the absence of any lymphatic tumor, the fact being demonstrated by autopsy. In the latter case they are susceptible of an explanation like that we have given of the hæmorrhage which occurs in other organs.

The liver seems to be almost constantly augmented in volume in leucocythæmia. Sometimes, when enlarged, it is strewn with little whitish masses, more or less voluminous, which are nothing else than lymphatic matter. At other times, on the contrary, no marked lesion can be detected, at least on superficial examination, by the naked eye. Yet such really exists, sufficiently accounting for the increase in bulk. Histological examination shows in fact that in



the substance of the organ the capillary vessels, which are so numerous in a hepatic "islet," are double, triple even, in size what they are in the normal condition. The capillary dilatation is here, as in other organs, the effect of the obstruction to the capillary circulation in consequence of the accumulation of white globules. Now, we know that whenever there is such an obstruction in the liver, there is [under other circumstances] a rapid production of ascites. It is not, therefore, astonishing that the existence of this complication has been noticed in a certain number of cases. But, what is more surprising, is that it has not been met with oftener, especially that it was not present in our second case, where the accumulation of white globules in the capillaries of the liver was so considerable. It is generally too slight to necessitate paracentesis. \* \* \* \* \*

It is, however, possible to explain, to a certain extent, why ascites is ordinarily inconsiderable in leucocythæmia, and perhaps why it is not of universal occurrence. In this disease the obstruction to the circulation is not confined to the hepatic terminations of the vena porta, but bears also upon the gastro-intestinal roots. \* \* \* The hindrance, too, to the hepatic circulation may not be sufficient to cause venous stasis, and consequently peritoneal effusion.

The lesions of the kidneys, and the albuminuria which have been observed, having been looked at with the naked eye, say MM. O. and R., have been called Bright's disease. This view of those lesions they consider hastily taken. The renal lesions which we have observed in our patients, they go on to say, consist essentially in dilatations of the capillaries and in effusions of white corpuscles disseminated through the whole organ. It was easy to see the continuity of these effusions with the vessels from which they came, and which were ruptured from over-distention. At certain points the uriferous tubes were separated by considerable spaces filled with white corpuscles. Almost everywhere the epithelium had undergone granulo-fatty transformation and a certain number of canaliculi contained colloid cylinders. Finally, in the interior of a few

tubes bent upon themselves, we found central masses which seemed formed by agglomerations of white globules. \* \* \* We also note as a third possible cause of albuminuria the passage of blood as such into the tubuli, a fact we observed in the kidneys of our first patient. \* \* \* \*

Not desiring to push this analysis further, we would merely say that the hæmorrhages which have been found in other organs, or in other tissues (lungs, uterus, nasal mucous membrane, skin, cellular tissue, muscles, &c.), as also the gangrenous lesions, the boils, &c. which have been recorded in a few rare instances, probably do not differ, as to their mechanism, from the phenomena we have been considering. Here also the point of departure, it seems to us, is a disturbance of the capillary circulation by the accumulation of white corpuscles.

[A parallel between leucocythæmia and adenia, MM. Ollivier and Ranvier think must await the development of new cases as data, before it can well be drawn. This want was partially supplied in our last issue.]

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AMERICAN MEDICAL EDUCATION VIEWED BY A FOREIGNER.—The *Révue des Cours Scientifiques de la France et de l'Etranger* gives the substance of a report by M. Th. de Valcourt, sent to this country by the Minister of Public Instruction to study the medical institutions of the United States. M. de Valcourt shows up the easy manner in which the doctorate of medicine is obtained in our land, in a way not at all flattering to the national pride. M. de Valcourt seems not to have visited this State; since if he had, he would have made an exception to his statement that "the nominal course of study for medical students being three years is easily reduced to two."

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GOOD HEALTH, A JOURNAL OF PHYSICAL AND MENTAL CULTURE. Boston, Alex. Moore.—We have been in receipt of this Journal of popular reading for some little time, and are constrained to say that in spite of some writings and names of writers which would hardly commend the work to the Medical Profession, and which might as well give

place to selected papers; we cannot help liking it. Its appearance is very attractive; there is just enough of it; its contents are varied, and much of them valuable.

With profound respect for the talented authoress of the sprightly article in the November number on "bottle-babies," we opine that it will hardly do. The fact of *that* "bottle-baby" having lived proves no more than the other fact that some people come off the battle field unscathed. Wide experience shows that cholera infantum and spoon-fed or bottle-fed babies are bosom friends; and that the best preventive of that fell disease is the breast of milk.

RAISING THE DROWNED.—*Mr. Editor*,—Every now and then the quiet of the good city of Boston is disturbed by the firing of cannon over the water, where a drowned person is supposed to lie. Have you or any of your readers ever *known* of a body being raised by such means? If so, can you suggest a better theory than the old one of bursting the gall bladder?

Very Respectfully,  
Boston, October 25th, 1869. G. W. G.

We have never known a drowned body to come to the surface at the bidding of the cannon, though it would be strange if a corpse had never appeared by coincidence during any of the many firings since the invention of gun-powder.

We have always understood that the body of a drowned person would float when enough of its solids had been converted by decomposition into gas to raise its specific gravity above that of water.

THE MEDICAL CORPS OF THE NAVY.—The following circular has been issued, and is being extensively circulated among the leading medical men, and the County Medical Societies of the United States.

*Sir*,—The injustice, of which the Medical Officers of the Navy have long complained, and the efforts made to secure to them the rank in the service, to which as members of the profession, they are entitled, have recently occupied a large share of public attention.

From the importance of Brooklyn as a Naval Station, and from intimate relations with Naval Officers, the members of the Kings County Medical Society have had

the opportunity of thoroughly investigating and understanding the question at issue. They have therefore decided that it is their duty to take the initiative in an effort to secure the name of every Physician in the State, to a Petition to Congress in behalf of our Brethren in the Navy. Two copies of the Petition are forwarded to you, with the request that you will, with the heartiness which their cause bespeaks, endeavor to secure the name of every member of your County Society, to both copies; one of them to be used by yourself, or your friends, in bringing the matter to the attention of the members of Congress for your district, or residing in your vicinity; the duplicate to be forwarded to us, that we may have a record of the entire work accomplished, and that the voice of your County may be heard, together with that of every County of the State, at the approaching session of Congress.

Yours Respectfully,  
R. C. STILES, M.D., *President*.  
H. J. CULLEN, M.D.,  
J. C. HUTCHISON, M.D.,  
J. H. HOBART BURGE, M.D.,  
CHAS. H. GIBERSON, M.D.,  
*Committee*.

We cordially endorse the action of the Kings County Medical Society, whose able committee has so thoroughly and impartially examined into the claims of the Medical officers of the Navy. We sincerely hope that the different Societies of this State will follow its noble example, and that each member of our profession will make an individual and personal effort to secure for our Naval brethren the *positive rank and substantial advantages* to which they by long and faithful services are entitled. The honor of the profession is at stake! Its dignity and privileges are imperilled! Let every medical man remember that in bringing this subject to the attention of his Congressional Representative he is doing justice to his brethren and performing his duty to the noble guild to which he has the honor to belong.

AURI SACRA FAMES.—Some persons who should know better are trying to deprive Boston of its right lung by filling in the Charles River basin. Would they not like to take away the heart also, by building over the Common? Why should they not

abstract the whole of our *lights* at once? Auscultation of the subject reveals a *bruit de diable*.

OBITUARY.—Dr. Anson Hooker, whose death on Saturday last has left a vacant space in our ranks not easily to be filled, had reached the ripe age of seventy years. Though venerable in length of days and in honors, he yet wore his age so well that we did not look upon him as an old man withdrawn from among us by seniority, but welcomed him always as the genial and instructive companion. His experience in one branch of the profession, that of Obstetrics, was probably not surpassed by that of any one now in active practice in this State. His general excellence, too, as a sound practitioner of medicine and surgery, was universally acknowledged.

DEATH OF DR. EDWARD GILCHRIST, SURGEON U. S. NAVY.—Dr. Edward Gilchrist, a distinguished and well-known surgeon of the U. S. Navy, died suddenly at his residence in the U. S. Naval Hospital, Chelsea, on Saturday evening, at about 9½ o'clock. The deceased had been suffering from neuralgia for some time past, with intense bodily pain. His sudden death is supposed to have been caused by congestion of the brain. Dr. Gilchrist entered the naval service on the 26th of January, 1832, at the age of nineteen, and served a full term of fifteen years as surgeon on board of naval vessels.

For the past nine years he was physician and surgeon of the U. S. Naval Hospital in Chelsea, and while in charge of the hospital he made many improvements about the building and grounds, and also had new buildings erected; and, in fact, the Chelsea Hospital was rated by the Naval Bureau as being the best in the Naval Department. A few weeks ago Dr. Gilchrist was relieved as surgeon of the hospital, for the purpose of acting as inspector of all the naval hospitals. Dr. Taylor, the present Surgeon at the Chelsea Hospital, took charge of the same and relieved Dr. Gilchrist Oct. 1st. The deceased was about to make a tour to the hospitals South, and at Norfolk to lay out a burial ground for United States marines and sailors. He was well known as a skilful and learned surgeon. His death will be regretted by the medical department of the U. S. Navy, and citizens generally. He was about fifty-seven years of age, and

leaves a wife. He was a native of Charlestown, N. H., where his remains will be taken for interment.—*Herald*.

ON REMEDIES USEFUL IN THE TREATMENT OF PHTHISIS.—Dr. Godwin W. Timms, one of the Physicians to the North London Consumption Hospital, in an article on this subject, published in the *Dublin Medical Press and Circular*, concludes with the following:

We may sum up shortly our treatment of consumption:—Light, simple, and nourishing diet, in quantity always in proportion to the appetite of the individual (the palate is an excellent guide, which we should be always afraid to offend), all wholesome fruits and vegetables, a moderate amount of thoroughly-cooked meat, and diluents, tea, milk, whey, &c., according to the patient's experience, avoiding all stimulants and forcing of the appetite. Regimen: excitement of the skin by constant cleanliness, friction, and woollen clothing; fresh air, sea air if possible; exercise of every kind, gymnastic exercises, singing, reading; the avoidance of every restriction by dress upon the chest-walls, and of indolence and self-indulgence of every kind; the exclusion of gas from all apartments inhabited by the invalid; early hours, and as short a sojourn as possible in the same atmosphere; hence it is better to take a short sleep in the day than to remain more than six or seven hours in the bedroom, the windows of which should never be shut except on particular occasions, or under peculiar circumstances.

Drug treatment. An obstinate cough with expectoration in the member of a consumptive family, unaccompanied by much general disturbance, is most successfully treated by twelve or fifteen drops of dilute hydrochloric acid in one ounce of water every two hours. Patients often declare that they taste the chlorine in the expectoration.

An obstinate dry cough, accompanied by emaciation, debility, and fever, is very successfully treated by half an ounce of cod-liver oil three times a day after meals, in a draught containing one-fifteenth of a grain of bichloride of mercury. Either of these remedies is good in all stages of the disease, with or without oil.

In children, cod-liver oil alone is very successful; as age advances, the remedial power of cod-liver oil is diminished.

In the middle-aged, and in consumption occurring in the survivor of a husband or

wife dead of phthisis, the hydrochloric acid, in the doses mentioned above, is the most successful remedy.

Steel is only to be given for a few days at a time. All astringents, except for special objects, are injurious. The citrate or tartrate of soda or potash should be given occasionally, and these salines are quite as generally useful as steel.

Mild laxatives occasionally are very beneficial; pills of grey powder and rhubarb for the young and a mild aloetic pill for the middle-aged will tempt the practitioner who tries them to very frequent use. Trying to help towards the successful treatment of a few varieties of consumption, it would not become me to condemn any drugs recommended by other practitioners. So intractable is the disease, that every new remedy ought to have a fair trial. Familiar with the idea of patients being induced to swallow the urine of the boa constrictor and the pancreatic fluid of a pig, if a patient were to tell me that he had found benefit from inhibiting the saliva of a goat, I should not hesitate to recommend him to persevere in its use.

Much more do I recommend most respectfully the practitioner who has found success from treatment by peroxide of hydrogen, the hypophosphites, chlorate of potash, &c., to persevere in their judicious use, until they can point out distinctly the cases in which they may be hopefully recommended.

All I can say is, that I have not been so fortunate as to find any decided results from their persevering exhibition.

Copy of the letter repudiating the statements made by Surgeon N. Pinkney, before the American Medical Association at New Orleans, in May last, generally signed by the Medical Officers of the U. S. Navy, and dated July, 1869.

"Lest a false impression may be created by Surgeon Pinkney's statement, made to the American Medical Association, at its annual meeting held at New Orleans, La., in May last, that the Medical corps was never placed on a firmer basis than at the present moment, the undersigned deem it proper to say that, although Dr. Pinkney was detailed at his own request to represent the Medical Corps on the above mentioned occasion, they repudiate his whole speech in letter and spirit, because it is not an exposition, in any degree, of the views of the Corps. And they declare that the Medical Officers of the Navy are thorough-

ly dissatisfied with the position to which they have been recently reduced, and that they are alarmed at the still further reduction proposed in the bill of Senator Grimes, even with those modifications which Dr. Pinkney states would render it acceptable to him; and therefore they invoke Congress to secure them by law a just position or rank, with its corresponding privileges and immunities in the naval service."

It may be interesting and significant to add that the above mentioned statements of Dr. Pinkney have been published by the *Line* and are industriously and extensively circulated to give the false impression that the Medical Staff is content with its humiliated position—and also, that Dr. Pinkney, by order of the Navy Department, is engaged in inspecting the hospitals of Europe.  
--*New York Medical Gazette.*

MORPHINE.—Upon this subject of morphine we wish to state that some parties in Boston profess to manufacture that important chemical, and actually brand it with their trade-mark; but which, after all, is nothing more nor less than Scotch morphine, manufactured by a chemist in Edinburgh, and, to some extent, smuggled *via* Canada into this country. No wonder the Boston parties are able to undersell the honest manufacturers in the West, and offer extra inducements to unprincipled dealers, whose conscience allows them to deal in such goods! Some time last year a member of that Scotch firm paid us a visit, and mentioned, in the run of conversation, his intentions of introducing his morphine; he also, afterwards, visited Canada, and wrote us that he had succeeded in making the desired arrangements, which, at that time, we did not comprehend fully. On his return, he tried several parties to espouse his cause, and stand godfather to his morphine in this country; after some delay he found his men in the moral city of Boston, and to-day he, no doubt, has the extreme pleasure of seeing his morphine labelled in true Boston-like style, adopted, carefully nursed, and sent into the drug market under the fostering care and with the names of his Boston friends.

To be candid in this matter, we regarded the representative of the Scotch firm somewhat too sanguine in his expectations, and, trusting to the honesty of our business men, we did not give this matter the deserving attention we ought to have done had we fully understood his intentions. We think, nevertheless, it is time to notify the

Department in Washington, and hope the honest men in the drug trade will turn a cold shoulder on Scotch-smuggled morphine, even if it is sugar-coated with Boston labels, &c.—*N. Y. Druggists' Price Current.*

**DISLOCATION OF BOTH BONES OF THE FORE-ARM FORWARDS.**—Dr. Forbes reported the following case of this rare accident to the College of Physicians of Philadelphia:—

On the 10th of December I was called to see M. M., a boy about 12 years old. His accident had occurred but a short time previous to my arrival. He had been exercising himself in a gymnasium, and the proprietor, who saw him at the time, stated that while going up a ladder hand over hand he fell, striking, while falling, the back of his elbow, "at the tip" against the margin of a table, the fall (which was only of about two feet) having taken place just as he had drawn his head near one round of the ladder, which he held in the grasp of his right hand, and while in the act of extending the left hand to seize the round above.

On examination, the right forearm was found rigidly fixed at not quite a right angle with the arm. The arm was shortened and the forearm lengthened. The hand was supinated and the tendon of the biceps somewhat tense. The olecranon was discovered lodged distinctly in front of the humerus and above the lower margin of the trochlea, and the head of the radius separated from the capitellum by a depression in which the finger could be placed. The dislocation was complete.

While he was under the influence of ether, I flexed the forearm on the arm, so as to disengage the posterior and upper margin of the olecranon from its position in front of the humerus, and while holding the arm firmly, both radius and ulna, being still strongly flexed, were brought downwards and backwards, and the reduction was readily effected.

The general gonflement, tenderness and discoloration of the entire extremity were excessive for some three weeks after the accident, and it was not until six weeks had elapsed that complete restoration of all the movements of the joint was accomplished, thus indicating how extensive must have been the laceration of the neighboring parts.—*Am. Jour. of Med. Sciences.*

**HAHNEMANN OUTDONE.**—A few weeks ago a friend of ours was seized with a sudden attack of dysentery, attended with consid-

erable fever. A homœopathic practitioner was called in, who after mixing up a couple of tumblers-full of "mercurius," and "belladonna," of surprising attenuation, took his departure. Feeling somewhat anxious, we called at a late hour in the evening, and found the patient in a state of stupor, which there was no mistaking. An examination of the pupil revealed dilatation to an alarming extent. We advised a discontinuance of the medicine, and went home in deep meditation on the marvels of homœopathy. Next morning evident signs of salivation were experienced by the patient, and the evening found it thoroughly established. During our visit, next evening, we met the doctor, and on inquiry found that the mercurius had been administered in the form of "our corrosivum," and in the dose of the 1,000,000,000th part of a grain; and the belladonna, which was described as a "pharmaceutic tincture," in the same considerable amount. Being a man of peace, and not wishing to reveal our ignorance of the action of these remedies, we avoided discussion by expressing our astonishment; but, although knowing there are heights and depths of therapeutical knowledge to which we have not yet attained, we must confess to having misgivings as to the degree of attenuation in which the medicines were exhibited. It may be that potency of the "pharmaceutic tincture" affected the vision of the worthy doctor, preventing a proper appreciation of quantity; or a slight mercurial tremor may have caused his hand to shake while apportioning the dose of "our corrosivum;" of this we know not, but at all events the effects were realized, and it will be well for writers on the action of these remedies to make a note of it.—*Canadian Pharmaceutical Journal.*

**THE CONTAGION OF DOG MANGE.**—The etiology of *tenia favosa* in man may be regarded as decided by M. St. Cyr, of Lyons, who put beyond doubt its transmissibility from animals to man.

The presence of mangy dogs in the Veterinary School at Lyons has produced a true epidemic amongst the mice. Three pupils of the school have submitted themselves to the contagion, and solution of corrosive sublimate in glycerine has been found to be almost a specific.—*Med. Press & Circular.*

The College of Physicians and Surgeons, New York, began its sixty-third session on the 4th inst. Prof. J. W. McLane made the opening address.

## Medical Miscellany.

**DEATHS IN THE CITY OF PROVIDENCE, R. I.**—In the month of October the number of deaths was 100; males, 56—females, 44. Number under 5 years of age, 41; over 60 years of age, 18. From consumption, 18; typhoid fever, 6; scarlatina, 7. On the subject of the comparative high percentage of infantile mortality during the month, Dr. Snow, the City Registrar, remarks:

"Children are killed by the manner in which they are dressed and by the food that is given them, as much as by any other causes. Infants of the most tender age, in our changeable and rough climate, are left with bare arms and legs and with low-neck dresses. The mothers, in the same dress, would shiver and suffer with the cold, and would expect a fit of sickness as the result of their culpable carelessness. And yet the mothers could endure such treatment with far less danger to health and life than their tender infants.

"A moment's reflection will indicate the effects of this mode of dressing, or want of dressing, on the child. The moment the cold air strikes the bare arms and legs of the child, the blood is driven from these extremities to the internal and more vital organs of the body. The result is congestion, to a greater or less extent, of these organs. In warm weather, the effect will be congestion of the bowels, causing diarrhea, dysentery, or cholera infantum. We think this mode of dressing must be reckoned as one of the most prominent causes of summer complaints, so called. In colder weather, congestion and inflammation of the lungs, congestion and inflammation of the brain, convulsions, &c., will result. At all seasons, congestion, more or less, is caused, the definite effects depending upon the constitution of the child, the weather, and various other circumstances.

"It is painful, extremely so, to one who reflects upon the subject, to see children thus decked like victims for sacrifice, to gratify the insane pride of foolish mothers. Our most earnest advice to all mothers is to dress the legs and arms of their children warmly, at all events. It would be infinitely less dangerous to life and health to leave their bodies uncovered than to leave their arms and legs bare, as is the common custom."

**PROMPT ACTION**—At the hôpital Cochin laryngotomy was recently performed on a workman. The membranes obstructed the tube, and the patient was on the point of expiring. The *interne*, M. Bailly, snatched away the instrument, and applying his lips to the wound forcibly drew into his mouth the sanguinolent matter which obstructed respiration. The patient was saved.

**MURIATE OF AMMONIA.**—Dr. W. L. Atlee repeats that he has settled down upon the muriate of ammonia as the only agent deserving of any confidence for the dispersion of uterine fibroids.

**ERGOTINE IN GALACTORRHEA.**—M. Le Gendy, in the *Gazette des Hôpitaux*, gives three cases in which galactorrhea ceased promptly under the use of ergotine.

**CHLORAL.**—Mr. Markoe, the well-known pharmaceutical chemist of this city, has manufactured a specimen of chloral.

**TO CORRESPONDENTS.**—Communications accepted:—Two Cases of Dislocation of the Clavicle—Peritonitis and Ulceration of the Gall-bladder following a Kick—Horny Tumor of Ear—Tuberculosis of the Iris—Ganglion.

**BOOKS AND PAMPHLETS RECEIVED.**—Cataract and its Treatment, Medical and Surgical. By Jabez Hogg, F.L.S., Senior Assistant Surgeon to the Royal Westminster Ophthalmic Hospital, London. Pp. 36.—Our Home Physician: A new and popular Guide to the Art of preserving Health and treating Disease; with plain Advice for all the Medical and Surgical Emergencies of the Family, &c. &c. By George M. Beard, A.M., M.D., Member of the New York County Medical Society, &c. With numerous Illustrations. E. B. Treat & Co., Publishers, New York. Pp. 1006.—Percussion and Auscultation as Diagnostic Aids. A Manual for Students and Practitioners of Medicine. By Dr. Carl Hoppe, Assist. Physician to the 6th Westphalia Regiment of Infantry. Translated by L. C. Lane, M.D. J. B. Lippincott & Co., Publishers, Philadelphia. For sale by James Campbell, Boston. Pp. 152.—A Compend of Materia Medica and Therapeutics, for the use of Students. By John C. Riley, A.M., M.D., Washington, D. C. Published by Lippincott & Co., Philadelphia. For sale in Boston by Jas. Campbell. Pp. 570.

**MARRIED.**—In this city, 2d inst., Horace Kimball, M.D., of New York city, to Marianna H. Everett, of West Newbury, Mass.

**DIED.**—At the U. S. Naval Hospital, Chelsea, Dr. Edward Gilchrist, a well-known and distinguished Surgeon in the U. S. Navy, aged 58.—In East Cambridge, Dr. Anson Hooker, one of the oldest and ablest physicians in Massachusetts, aged 70.—In Xenia, Ohio, Oct. 11th, Dr. William Bell, aged 70.

*Deaths in seventeen Cities and Towns of Massachusetts for the week ending Nov. 6, 1890.*

Cities and towns.	Number of deaths in each place.	Prevalent Diseases			
		Consump.	Pneumo.	Typhoid	Fever.
Boston . . . .	85	17	6	2	4
Charlestown . .	16	4	1	1	0
Worcester . . .	14	1	1	1	0
Lowell . . . .	16	2	0	1	0
Milford . . . .	4	1	0	0	0
Chelsea . . . .	6	0	3	0	2
Salem . . . .	7	1	2	0	0
Cambridge . .	9	2	2	3	0
Lawrence . . .	3	1	0	1	0
New Bedford .	6	0	2	0	0
Springfield . .	7	3	0	1	0
Lynn . . . .	8	0	2	1	0
Gloucester . .	12	3	1	1	3
Taunton . . . .	6	1	1	0	0
Newburyport .	4	0	0	0	1
Somerville . .	3	1	0	1	0
Fall River . .	9	1	0	0	1
	215	38	21	13	11

GEORGE DERRY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending November 6, 85. Males, 40—Females, 45.—Accident, 2—apoplexy, 5—asthma, 2—congestion of the brain, 1—disease of the brain, 6—bronchitis, 1—burns, 1—cancer, 2—cholera infantum, 2—consumption, 17—convulsions, 3—croup, 4—cyanosis, 1—debility, 6—diarrhea, 1—dysentery, 2—scarlet fever, 3—typhoid fever, 2—disease of the heart, 2—hip disease, 1—interperance, 2—disease of the liver, 2—inflammation of the lungs, 6—old age, 2—paralysis, 2—pleurisy, 2—premature birth, 2—smallpox, 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 2—between 20 and 40 years, 12—between 40 and 60 years, 15—above 60 years, 14. Born in the United States, 58—Ireland, 21—other places, 6.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, NOVEMBER 18, 1869.

[VOL. IV.—No. 19.]

## Original Communications.

### STRANGULATED INGUINAL HERNIA.

By GEORGE W. GAY, M.D., Surgeon to Out-patients,  
Boston City Hospital.

*Case of Strangulated Inguinal Hernia in a Woman 80 Years old; Operation; Rupture of Intestine; Death in 24 Days.*

Mrs. M., widow, æt. 80, sent to the Boston Dispensary for a physician, May 12th, 1869. Dr. Lincoln being out of town, we saw the patient for the first time on the afternoon of the above date.

She had had an inguinal hernia thirty or forty years. It had frequently come down, but she had always been able to return it till three days ago, when it got nipped, and she could not get it back. In the right groin, over the external abdominal ring, there was a tumor of the size of an English walnut, firm, tense and tender, neither fluctuating nor giving any impulse on coughing or straining; not affected by ordinary taxis. Considerable pain and vomiting, but not as much as there was yesterday. Pulse 110, regular. No appetite. Bowels not moved for four days. Some subsultus tendinum. Ordered opium, hop fomentations and liquid diet.

May 13th.—Patient weaker. Pulse 112, weak and irregular. Subsultus, and the condition of the nervous system generally, worse. Tumor same. With the assistance of Dr. Beach and Mr. C. B. Brigham, one of our house-surgeons, the patient was etherized, and taxis, ice and position tried for a short time, without making any impression on the tumor. An incision, two inches long, was then made over the long diameter of the tumor, and a careful dissection made down to the sac; this, on being opened, gave exit to about a drachm of bloody serum, and revealed a small piece of omentum and a knuckle of small intestine. The coats of the intestine were only moderately congested; they were thickened and brownish-colored, but we have certainly seen much worse-looking intestines

recover their tone after being released by an operation. Hernia easily reduced after nicking the neck of the sac. Wound partially closed with a couple of sutures, and a graduated compress and spica bandage applied. She was thoroughly etherized during taxis, but only very slightly afterwards. She endured the operation well.

14th.—Patient is comfortable and had a fair night, with one grain of opium. Pulse 100, of fair strength. Very little nausea, no vomiting. Abdomen a little tender and tympanitic. Continue hops, opium and enemata of milk. Beef-tea and brandy.

15th.—Pulse 110, stronger and more regular. Abdominal symptoms less. One free stool. Has incontinence of urine.

16th.—Slept all night. Bright and cheerful. No pain. Wound partially united. Takes her food by the mouth and rectum.

17th.—Fourth day after operation. Faecal matter began to come from the wound this morning. Patient feels well and wants to get up. She is much improved in her general condition; takes her food well and digests it.

She continued to improve for nearly a fortnight, when, on taking a slight cold, she began to fail, and died of exhaustion, June 6th, twenty-four days after the operation.

Physiologically, it was interesting to watch the intestinal discharge from the wound and rectum after the bowel broke. The rectal discharges were always white and of a peculiar odor, neither faecal nor putrid; quantity and consistence normal. There was no undigested food in them.

The discharge from the wound, supposed to come from the upper part of the small intestine, was thin, of natural color and odor. It oozed out fast or slow, according to the activity of the peristaltic motion of the intestines, and varied from one to eight ounces in twenty-four hours. It was only moderately irritating to the neighboring tissues.

At times, when the nausea and vomiting prevented her taking her nourishment in the usual way, she was fed entirely by the rectum, with milk, beef-tea, &c., which she

always retained remarkably well. In from four to six hours after the injections were begun, the discharges from the groin consisted principally of the injected matter, semi-digested. Partially digested food never came from the wound unless she had been taking injections for some hours; these usually consisted of milk or beef-tea, with a little brandy, and sometimes laudanum. She had a natural stool nearly every day after the third day following the operation, besides the discharge from the groin.

She never gained sufficient strength to justify any attempts to close the opening in the intestine and groin.

## Selected Papers.

### STRANGULATED HERNIA.

THE *Medical Record* of Oct. 15th has the following interesting cases of strangulated hernia. Cases I. and II. are reported by Dr. James L. Little, and Case III. by Dr. F. D. Lente.

CASE I.—*Strangulated Inguinal Hernia on left side, in which the protrusion consisted of the Appendix Vermiformis, a portion of the Cecum, and several inches of the Ileum.*

ON January 13th, 1869, I was called to see a child, aged four months, which was under treatment, by Dr. E. B. Belden, for gastric disturbance. The doctor had not seen the child for about twenty-four hours previous to my being called in, having been detained by some urgent case. On arrival I found the patient suffering from strangulated inguinal hernia of the left side.

The hernia first made its appearance about twelve hours previous to my visit, and had gradually increased in size, owing to the straining caused by the child's crying. The patient had been constantly vomiting for the last three or four hours. On examination the hernial tumor was found to be tense and resonant on percussion.

Taxis was tried and failed. The little patient was thereupon etherized by Dr. Samuel B. Ward, and another attempt at taxis was made, upon the failure of which I proceeded to operate, assisted by Drs. J. L. Campbell and P. C. Cole.

The operation was performed in the usual manner.

On opening the sac the hernia was found to consist of the appendix vermiformis, with a knuckle of the cæcum and about four inches of the ileum. The internal ring being the seat of the stricture, it was en-

larged with the hernia knife, and an attempt was made to reduce the protrusion. Here considerable difficulty was met with, owing to the cavity of the pelvis being so very small.

On attempting to push back the intestines, more and more of them were forced out, until about eighteen inches of the ileum protruded from the abdominal cavity.

The child was then raised from the table by his feet, with the head hanging down, and after some trouble the intestines were replaced. Dr. Cole then, with his finger, made pressure over the internal ring, while the wound was closed by means of sutures, and a compress of adhesive plaster, folded with the adhesive side out to prevent it from slipping, was then placed over the external ring and over the inguinal canal, and secured by a spica bandage.

Four hours after the operation a spontaneous discharge from the bowels took place; this was followed by an obstinate diarrhoea, in consequence of which the patient died on the third day after the operation.

*Remarks.*—This case is one of extreme rarity. Teale, in his admirable work on Hernia, refers to a case mentioned by Sandiford, in which a hernia of the left side was formed by the cæcum, but does not state the age of the patient. With this exception, I have not been able to find a reported case in which this condition existed. In the infant the cavity of the pelvis is small, and the meso-cæcum is proportionately larger than in the adult, and allowing a greater freedom of movement in the cavity of the pelvis, may thus be enabled to descend into a hernial sac on the left side.

Transposition of the viscera, which sometimes occurs, has been suggested to explain this case; but the examination of the intestines at the time of the operation showed that the relation of the appendix vermiformis and the cæcum with the ileum was normal.

CASE II.—*Strangulated Hernia of the Tunica Vaginalis, the Testicle being in the Inguinal Canal.*

AUGUST 16th, 1868, at 12 M., I was called to see J. P., aged 40, who was suffering from a strangulated hernia.

The man gave the following history:—Has been suffering from rupture for many years; was accustomed to wear a truss during the day, removing it on retiring to bed.

For some time past he had been drinking rather freely, and after rising this morning he went out to get his usual glass of liquor,



neglecting to apply his truss. While out he began to suffer from symptoms of strangulation. After making several unsuccessful attempts to reduce the rupture, Dr. Dumond, the family physician, was called in, and he not being able to relieve the patient by taxis, sent for me. On arrival I found the sufferer with all the symptoms of strangulated hernia—vomiting and severe pain in the vicinity of the umbilicus. On examination I found a large tumor, about the size of an orange, in the right iliac region, just above Ponpart's ligament, resembling very much a large femoral hernia, which had turned up over Ponpart's ligament. Patient stated that it had always been considered a femoral hernia. On further examination I found that the right testicle was missing; patient remarked that he had never had more than one.

The tumor had an elastic feeling, and was resonant on percussion; the situation of the testicle could not be ascertained.

Was told by the patient that the hernia had never descended into the scrotum. The case was then diagnosed as an oblique inguinal hernia, confined in the inguinal canal by an undescended testicle. After making an ineffectual attempt to reduce by taxis, and finding that the symptoms were urgent, I deemed it advisable to operate immediately. The patient was etherized by Mr. Hurdfield, a medical student, taxis was again tried, and failing, the following operation was performed, Dr. Dumond, attending physician, and Drs. White and P. C. Cole assisting.

*Operation.*—The incision, about four inches in length, was made in the most prominent part of the tumor, parallel with the median line of the body. Cutting the skin and superficial fascia the aponeurosis of the external oblique muscle was then divided upon a director and the hernia immediately brought into view. It consisted of about twelve inches of the small intestine, and was of a dark red color. The testicle, of natural size, was now seen in the wound, in the neighborhood of the external ring. The finger was then passed up into the internal ring, which seemed to be the seat of stricture; this was enlarged by the hernia knife and the intestine returned. The wound was then closed by silver wire sutures, allowing the testicle to remain in its original position, and a compress and spica bandage applied. Ordered one grain of opium, to be taken every three hours.

Five hours after operation:—Patient in good condition; pulse 92; slight tenderness over the abdomen; ordered opium,

grain j., every two hours; poultices of linseed meal applied to abdomen.

Twenty hours after:—Pulse 72; patient vomiting occasionally, and appears to have some symptoms of delirium tremens; opium continued, and carbonic acid water given to allay vomiting.

Forty-four hours after operating:—Vomiting has ceased, and general condition somewhat improved; slight erysipelatous inflammation; ordered lead and opium wash.

Seventy-two hours after:—Patient's bowels moved spontaneously, and from this time forth his condition progressed very favorably; the wound suppurated moderately, and in about two weeks after operating he was able to pursue his usual vocation.

*Remarks.*—This case is similar to the one reported by Dr. Gurdon Buck in the *Record* of the date of July 15, 1869. No distinct peritoneal sac could be found; the peritoneum lining the inguinal canal was adherent to the walls of the canal, so that when the skin and superficial fascia were divided the tendon of the external oblique muscle was exposed, and lifting a small part with the forceps and making it so as to introduce a director, on cutting it the intestine was immediately exposed to view. The testicle, with spermatic cord and intestine, was in the same peritoneal cavity as in congenital hernia.

CASE III.—*Strangulated Encysted Hernia of Tunica Vaginalis, complicated with a partially descended Testis, and also with Hydrocele.*

A. H., aged 20 years, a very stout, athletic youth, while making a violent effort at his work, on January 15th, 1869, felt something give way in his left groin, attended by the most intense pain, and almost causing him to faint; he, however, was able to lie on his stone-boat to be drawn home. Upon visiting the patient an hour or so after the accident, I found that he was considerably prostrated, that he had vomited twice, and was in great distress, complaining of severe pain in the right groin; where I found a swelling over the external ring, extending into scrotum, which was the seat of great tumefaction, very tense, but distinctly fluctuating; no gurgling, no impulse on coughing; there was a decided constriction just above the centre of the tumor; no translucency by dioptric test; the exact location of testicle could not be made out. Learned from patient that the testicle had not descended at all into the scrotum until he was 12 years old; could be felt at the external ring some time before. Since then he had been able to move it up and down the scro-

tum, and probably within the ring. He applied to me a couple of years ago with a moderate hydrocele, and was advised to wear a suspensory bandage until it increased so as to require operation. Stated that there had been much less swelling during the past year than before.

Administered ether to complete relaxation, and made persevering attempts at reduction, but unsuccessfully. Ordered an enema, the operation to be followed by a full anodyne, and a bladder of ice applied to the tumor.

Jan. 16th.—Bowels moved freely with the enema. No vomiting, but some nausea. Pulse 100, soft and regular. Dr. Murdock, my assistant, saw the case at this time. No urgent symptoms being present, it was decided to wait.

Jan. 17th.—Pain much increased and located principally about *umbilicus*, some vomiting; no change in tumor. Patient anxious. Etherized patient thoroughly, without making the least impression on the tumor. It was therefore decided to operate at once. Upon incising the integuments from the external ring downwards, the distended *tunica vaginalis* was exposed, and upon being opened, gave exit to several ounces of clear serum. The testicle, much atrophied, was exposed opposite the *ramus of the pubes*. Nothing could be seen of the *hernia*; but upon pressing the finger deeply in at the upper extremity of the incision, a small elastic swelling was felt; its investments very thick, being composed of the posterior wall of the *tunica vaginalis testis*, peritoneum, and probably some inflammatory exudation. Upon cutting through this, the small loop of intestine, in a fair condition, was exposed. The stricture was divided with some difficulty, as it was situated at the *internal ring*, and unusually high. The intestine was replaced and retained by compress and spica. The testicle was left where it was found, just below the external ring.

Feb. 11th.—Patient was perfectly comfortable for three or four days, and the wound had almost entirely healed by first intention. On the 23d the bowels were moved by castor oil; and at night he had a rigor, followed by swelling, pain, and tenderness at the seat of the wound, and in the inguinal glands of both groins, with *edema* of integuments of penis. After free poulticing, some of the adhesions at the upper part of the wound gave way, a discharge of pus appeared, and the bad symptoms gradually disappeared. The wound has now healed soundly, and patient is wearing a

truss. There is a little fullness at the situation of the testis.

*Remarks.*—This very rare form of hernia, usually designated, for some unknown reason, as "Infantile," was rendered still more interesting, in this case, by the fact that the *testis* occupied just the position where the hernial protrusion was expected to present itself, on dividing its usual coverings, and also by the coincidence of a regular hydrocele. These complications likewise rendered the diagnosis, at first, a little uncertain, as it was pretty distinctly made out, before the operation, that the testis occupied about the position where it was subsequently found, and an injury of this organ, occupying such a location, would give rise to many of the symptoms complained of. Some apprehension was also felt, after the operation, lest the testis, imprisoned by the consolidation of the tissues about it during the healing process, might occasion future trouble from its exposed situation; but, up to this date, no inconvenience has been experienced, and a truss is worn with perfect comfort.

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

AUGUST 23d.—*Dislocation of the Lens through a Rupture of the Sclerotic.*—Dr. WILLIAMS reported the case of a man, about 50 years of age, whose crystalline had been dislocated through a rupture in the sclera and was lying beneath the conjunctiva a little beyond the inner border of the iris. The displacement was caused by a blow from a stone. Extraction was at once practised. This is the second instance of this rare accident seen by Dr. W. within six months; the cause in the former case having been a blow from the horn of a cow.

SEPT. 13th.—*Operation for Traumatic Cataract; Subsequent threatened Sympathetic Ophthalmia; Removal of Globe and discovery of a Foreign Body in its Interior.* Dr. H. DERBY reported the case.

A. R., by trade a blacksmith, was at work April 19th, hammering iron, when a piece struck his left eye. I saw him four days later. The left globe was considerably reddened. An incised wound, between one and two lines in length, existed at the upper-outer edge of cornea, to which wound the iris was adherent. The iris itself was divided at this point, one of its split edges

being incarcerated in the wound. The lens was wholly opaque, a fragment projecting through the cleft in the iris.

There was no diminution of tension and excellent perception of light.

Two courses of action were presented under the existing circumstances. If the iron was now lodged in the globe, the removal of the eye alone would prevent subsequent implication of its fellow. But if the foreign substance had inflicted a simple wound, without penetrating to the interior of the organ, a removal of the cataract would probably restore a degree of vision that would prove of material service. It was decided to give the patient the benefit of the doubt, and the cataract was removed, April 24th, by the peripheric linear method of Graefe, the mode of operation now generally followed.

Some cortical substance was necessarily left behind, owing to a premature escape of vitreous. No pain or inflammation ensued. May 21st, nearly a month after the operation, the pupil was found to be filled with membrane streaked with blood, the perception of light being unequivocal, but still only quantitative.

Aug. 30th.—There had been some pain. I found considerable ciliary redness. The perception of light remained as before. No view of the interior of the eye could be obtained, owing to the membrane in the pupil. But the sound eye had begun to exhibit signs of approaching sympathetic ophthalmia, such as photophobia, lachrymation, and inability to support continued use.

It being thus rendered probable that the foreign body was lodged in the interior of the globe, enucleation was advised and performed Sept. 3d. On subsequent examination, a fragment of iron, nearly a line square, was found in immediate contact with the retina, nearly opposite the insertion of the inferior oblique muscle.

This history illustrates the supreme importance of diligently following up all traumatic cases where there is any doubt as to whether the foreign body has succeeded in effecting a lodgment. In the present instance, the patient is well and abundantly capable of following his ordinary trade. Had he happened to elude observation a few weeks longer, it is probable that incurable blindness would have resulted, and that he would have become a permanent charge on the community.

## Bibliographical Notices.

*The Jurisprudence of Medicine in its Relations to the Law of Contracts, Torts and Evidence, with a Supplement on the Liabilities of Vendors of Drugs.* By JOHN ORDRONAU, LL.B., M.D., &c. &c. Philadelphia: T. & J. W. Johnson & Co. 1869.

WE confess that we came to the perusal of this work with no favorable prepossessions. Books heretofore written with the design of combining the subject-matter of the two distinct professions of law and medicine have, as a rule, been melancholy failures, useless alike to the lawyer and to the medical man. They are apt to wear the appearance of having been gotten up on the famous principle on which a treatise on Chinese Metaphysics was once compiled. The author read in the Encyclopædia under the head of China, and again under the head of Metaphysics, and then combined the information thus obtained. But Dr. Ordonaux, who seems to have a right to claim a knowledge in his own person of both law and medicine, has done better than his predecessors, and has succeeded in producing a work of real merit. He covers thoroughly the ground which he undertakes to cover. He gives the legal element the preponderance over the medical, and he is clearly right in so doing. Nothing can be more crude and absurd than the medical treatises with occasional meaningless references to law cases which are the necessary result of the opposite system.

The grand fault of the book is one inseparable from the subject itself, and which the author himself indicates in his Preface. There is not, in fact, a very great quantity of positive law concerning physicians, as a class in society, and concerning sellers of drugs in contradistinction to vendors of other articles. What law there is doubtless is both interesting and valuable, and deserves to be collected and arranged, as Dr. Ordonaux has done it, for the benefit of the practitioners in each profession. But naturally, almost inevitably, the Doctor has been led into "making law," as the technical phrase goes; that is to say, he has laid down as law rules and doctrines which have never been actually declared to be law in adjudicated cases. His views are usually founded upon his notions of justice and of what ought to be, and what might be expected to be, sustained by the courts.

But until they have been thus sustained they are still open to the possibility of litigation and to that degree of doubt which is always attendant upon questions apparently the most simple, when legal subtlety is brought to bear upon them. Lawyers, using the book, are in no danger of being deceived by confounding speculative assertions with established law. But physicians, seeking to guide themselves by it, should bear in mind that only when the Doctor's text is supported by a reference to a legal cause can they feel absolutely certain of its soundness.

The chapters upon Fees and Malpractice are perhaps the most interesting, and not the least valuable in the work. There is no doubt, of course, that a physician may now sue and recover pay for his professional services. The romantic old notion of an *honorarium* has long since been exploded. A good suggestion is made to the effect that he should, in making out his bill to the patient, make it out by particular items of visits, with the date of each. The physician can be allowed to recover the sum claimed by him only upon proof of each one of the various items going to make up that sum total. He is on precisely the like footing with any member of the lay community who presents a bill for the sale of a number of different articles or the performance of a variety of jobs. He must prove each one individually. It is probable that no custom in the profession could ever be admitted in evidence, even if it in fact existed, by which a physician could be exonerated from this universal necessity. If, then, he must keep his books with accuracy for this purpose and must produce them if required, why not avoid the chance of a dispute in the outset by giving to the patient such a convincing document that he will not have any excuse for questioning it?

Upon malpractice we are surprised that the doctor has not found more cases to cite. We should have supposed that suits upon this ground were not unrequent. But we are content to believe that he has found all that have got into the reports. His doctrine that an error in judgment, if not so gross as to indicate an utter incapacity in the physician to act professionally at all, must not be so harshly construed as to make him liable to his patient in damages, is sound and good. What is gross incapacity cannot be laid down in abstract terms, but must be decided by a jury in every case which shall come before them upon the merits of that individual case. The

Doctor seems to fear that such suits may be too easily successful and so too tempting to angry patients who deem themselves ill-used, or pretend to deem themselves so, without just cause, and often for the purpose of extortion. Our own experience has been that it is one of the most difficult things in the world to fasten malpractice upon any physician of tolerably respectable standing. The members of the profession naturally stand by each other in their testimony. Many swear that the accused brother did rightly, for they know not how soon his case may be their own, and they feel the need of class-defence, so to speak. The jury think that "doctors disagree." The burden is on the plaintiff to prove the malpractice, and the jurors in the face of conflicting evidence very properly feel unwilling to say that they are convinced that he has done so. Suits for this cause of action would be much more frequent than they in fact are, were they so easily gained as the Doctor seems to think.\*

Upon the whole, the book is an excellent one, and we take pleasure in recommending it to lawyers, and even more especially to physicians, who will learn from it much that will interest them in relation to their legal duties and privileges.

JURISCONSULTUS.

*Sleep and its Derangements.* By WILLIAM A. HAMMOND, M.D., &c. &c. Philadelphia: J. B. Lippincott & Co. 12mo. Pp. 318.

THIS is an elegant volume, consisting of clear type, beautiful paper and tasteful binding. It is of precisely the right size to hold conveniently, and is replete with instruction and entertainment. The author tells us in his preface that "the basis of this little volume is a paper on *Insomnia*, published in the *New York Medical Journal* in May and June, 1865. This was subsequently enlarged and published in a separate form, under the title 'Wakefulness, with an Introductory Chapter on the Physiology of Sleep.'"

The Contents are:—The Necessity for Sleep, The Causes of Sleep, The Physical Phenomena of Sleep, The State of the Mind during Sleep, The Physiology of Dreams, Morbid Dreams, Somnambulism, The Pathology of Wakefulness, The Exciting

\* Yet physicians have been stripped of every dollar they owned, by convictions for malpractice, when we have good reason to believe that what was made to appear unskillful or neglectful treatment was the inevitable result of injury. It is not the charlatans who are usually made to suffer.—Ed.

Causes of Wakefulness, Somnolence, Somnolentia, or Sleep Drunkenness, Appendix.

In the chapter on "The Causes of Sleep," the condition of the brain during sleep is shown and contrasted with its state when stupor is present. "Perhaps no one agent so distinctly points out the difference between sleep and stupor as opium and its several preparations. A small dose of this medicine acting as a stimulant increases the activity of the cerebral circulation, and excites a corresponding increase in the rapidity and brilliancy of our thoughts. A larger dose lessens the amount of blood in the brain, and induces sleep. A very large dose sometimes diminishes the power of the whole nervous system, lessens the activity of the respiratory function, and hence allows blood which has not been properly subjected to the influence of the oxygen of the atmosphere to circulate through the vessels of the brain. There is nothing in the opium itself which produces excitement, sleep, or stupor, by any direct action upon the brain. All its effects are due to its influence on the heart and blood-vessels, through the medium, however, of the nervous system. This point can be made plainer by adducing the results of some experiments which I have lately performed.

"*Experiment.*—I placed three dogs of about the same size under the influence of chloroform, and removed from each a portion of the upper surface of the skull an inch square. The dura mater was also removed, and the brain exposed. After the effects of the chloroform had passed off—some three hours subsequent to the operation—I administered to number one the fourth of a grain of opium, to number two a grain, and to number three two grains. The brain of each was at the time in a perfectly natural condition.

"At first the circulation of the blood in the brain was rendered more active, and the respiration became more hurried. The blood-vessels, as seen through the openings in the skulls, were fuller and redder than before the opium was given, and the brain of each animal rose through the hole in the cranium. Very soon, however, the uniformity which prevailed in these respects was destroyed. In number one the vessels remained moderately distended and florid for almost an hour, and then the brain slowly regained its ordinary appearance. In number two the active congestion passed off in less than half an hour, and was succeeded by a condition of very decided shrinking, the surface of the brain having fallen below

the surface of the skull, and become pale. As these changes supervened, the animal gradually sank into a sound sleep, from which it could easily be awakened. In number three the surface of the brain became dark, almost black, from the circulation of blood containing a superabundance of carbon, and owing to diminished action of the heart and vessels it sank below the level of the opening, showing, therefore, a diminished amount of blood in its tissue. At the same time the number of respirations per minute fell from 26 to 14, and they were much weaker than before. A condition of complete stupor was also induced, from which the animal could not be aroused. It persisted for two hours. During its continuance, sensation of all kind was abolished, and the power of motion was altogether lost.

"It might be supposed that the conditions present in numbers two and three differed only in degree. That this was not the case is shown by the following experiment:—

"*Experiment.*—To the dogs two and three I administered on the following day, as before, one and two grains of opium respectively. As soon as the effects began to be manifested upon the condition of the brain, I opened the trachea of each, and, inserting the nozzle of a bellows, began the process of artificial respiration. In both dogs the congestion of the blood-vessels of the brain disappeared. The brain became collapsed, and the animals fell into a sound sleep, from which they were easily awakened. If the action of the bellows was stopped and the animals were left to their own respiratory efforts, no change ensued in number two, but in number three the surface of the brain became dark, and stupor resulted.

"In order to be perfectly assured upon the subject, I proceeded as follows with another dog:—

"*Experiment.*—The animal was trephined as was the others, and five grains of opium given. At the same time the trachea was opened and the process of artificial respiration instituted. The brain became slightly congested, then collapsed, and sleep ensued. The sleep was sound, but the animal was easily awakened by tickling its ear. After I had continued the process for an hour and a quarter, I removed the nozzle of the bellows, and allowed the animal to breathe for itself. Immediately the vessels of the brain were filled with black blood, and the surface of the brain assumed a very dark appearance.

"The dog could no longer be aroused, and died one hour and a quarter after the process was stopped.

"I have only stated those points of the experiments cited which bear upon the subject under consideration, reserving for another occasion others of great interest. It is, however, shown that a small dose of opium excites the mind, because it increases the amount of blood in the brain; that a moderate dose causes sleep because it lessens the amount of blood; and that a large dose produces stupor by impeding the respiratory process, and hence allowing blood loaded with carbon, and therefore poisonous, to circulate through the brain.

"It is also shown that the condition of the brain during stupor is very different from that which exists during sleep. In the one case its vessels are loaded with dark blood; in the other they are comparatively empty, and the blood remains florid.

"I think it will be sufficiently established, in the course of these remarks, that sleep is directly caused by the circulation of a less quantity of blood through the cerebral tissues than traverses them while we are awake. This is the immediate cause of healthy sleep. Its exciting cause is, as we have seen, the necessity for repair."

Subsequently Dr. Hammond says:—"But the most philosophical and most carefully digested memoir upon the proximate cause of sleep, which has yet been published, is that of Mr. Durham. Although my own experiments in the same direction, and which will be hereafter detailed, were of prior date, I cheerfully yield all the honor which may attach to the determination of the question under consideration to this gentleman, who has not only worked it out independently, but has anticipated me several years in the publication, besides carrying his researches to a much further point than my own extended."

Further on he remarks:—"Having thus, in as succinct a manner as possible, brought forward the principal observations relative to the immediate cause of sleep, which up to the present time have been published, I come, in the next place, to detail the result of my own researches."

Those researches he proceeds to describe. For an account of them we must refer to the book.

"A most interesting comparison between the effect of ether and that of chloroform on the brain was thus instituted. An opening was made in the skull of a dog so as to expose the dura mater to the extent of a full square inch. Two hours subsequently

the animal was again etherized, in order that the influence of the ether upon the cerebral circulation might be observed from the commencement. At the time the dog was awake, and had a few minutes previously eaten a little meat and drank a small quantity of water. The brain protruded through the opening in the skull, and its surface was of a pink hue, with numerous red vessels ramifying over it. The ether was administered by applying to the muzzle of the animal a towel folded into the shape of a funnel, and containing a small sponge saturated with the agent.

"As soon as the dog commenced to inspire the ether, the appearance of the brain underwent a change of color, and its volume became less. As the process of etherization was continued, the color of the surface darkened to a deep purple, and it ceased to protrude through the opening. Finally, when a state of complete anæsthesia was reached, it was perceived that the surface of the brain was far below the level of the cranial fissure, and that its vessels conveyed black blood alone.

"Gradually the animal regained its consciousness; the vessels resumed their red color, and the brain was again elevated to its former position. In this last experiment there did not appear to be any congestion of the brain. Had this condition existed, it would have been difficult to account for the diminution in bulk, which certainly took place. There was evidently less blood in the cerebral tissue than there had been previously at the etherization; but this blood, instead of being oxygenated, was loaded with excrementitious matters, and consequently was not fitted to maintain the brain in a condition of activity.

"The following morning, the dog being quite lively, I removed the sutures which had been placed in the skin, covering the hole in the cranium, with the view of ascertaining the effects of chloroform upon the brain, when introduced into the system by inhalation. Suppuration had not yet taken place, and the parts were in good condition. The opening in the skull was completely filled by the brain, and the surface of the latter was traversed by a great many small vessels carrying red blood. The chloroform was administered in the same way in which the ether had been given the previous day.

"In a few seconds the change in color of the blood circulating in the vessels began to take place, but there was no sinking of the brain below the level of the chasm in the skull. On the contrary, its protrusion

was greater than before the commencement of the experiment. There was thus not only unoxxygenated blood circulating to too great an extent through the brain, but there was very decided congestion."

As to the state of mind during sleep, Dr. Hammond concludes thus:—

"1. Feeling, embracing sensation and emotion, is suspended, so far as the first is concerned; but is in full action as regards the second. We do not see, hear, smell, taste or enjoy the sense of touch in sleep, although the brain may be aroused into activity and we may awake through the excitations conveyed to it by the special senses. The emotions have full play, unrestrained by the will and governed only by the imagination.

"2. The Will or Volition is entirely suspended.

"3. The Thought or Intellect is variously affected in its different powers. The imagination is active, and the memory may be exercised to a great extent; but the judgment, perception, conception, abstraction, and reason are weakened, and sometimes altogether lost."

In the chapter on "Morbid Dreams," Dr. Hammond says:—"Perhaps no one medicine is so uniformly successful in the ordinary forms of nightmare as the bromide of potassium, administered in doses of from twenty to forty grains, three times a day. I have seen a number of cases which had resisted all hygienic measures, and the simple removal of the apparent cause, yield to a few doses of this remedy."

The chapter on Somnambulism is a complete monograph in itself. Full of suggestion, it furnishes much food for thought. In this somnambulant condition the author assumes that "the sense of touch is very differently affected, for so far from being diminished in its action, it is invariably unduly exalted. Though the eyes do not see, the ears hear, the tongue taste, or the nose smell, the somnambulist has one sense which is fully awake, and by which he is enabled to guide himself through the most devious passages in dangerous paths.

"In this fact it appears to me we have a strong argument in favor of the theory of somnambulism which I have already referred to, and which appears to me to be supported by much additional evidence. I propose this view not without hesitation; but much study of the phenomena of somnambulism, and of analogous states of the nervous system, has certainly tended to convince me of its general correctness, and

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I am not without the hope that other students of neurology will find it reconcilable with their observations and experiments.

"In my opinion, somnambulism is a condition of the organism in which through profound sleep the action of the encephalic ganglia is so materially lessened that the spinal cord becomes able to control and direct the body in its movements."

In another place he says:—"As regards the power of the spinal cord to supply the nervous force requisite for the performance of such actions as those specified [in somnambulism], I do not think there can be any question. Much observation and many experiments have convinced me that the importance of the spinal cord as a centre of intellection and volition has been unwarrantably ignored. It is of course not a matter for doubt that the faculty of consciousness is latent in the spinal cord so long as the brain is in a state of activity, and that the faculty of memory does not reside in it at all. When the brain acts, it ordinarily assumes the control of the cord; but there are times, especially during the course of certain diseases, when the latter obtains the mastery over the superior organ and dominates with terrible power.

"The actions initiated by the spinal cord are more or less automatic in their character—though not altogether so. The motions of a frog deprived of its brain, show a certain amount of intellection and volition. That they are not more extensive is probably due to the fact that all the organs of the senses, except that of touch, have been removed with the brain. In persons engaged in intense thought and performing actions not in accordance therewith, the impressions made upon the organs of the senses are not appreciated by the brain, but pass through its substance to the spinal cord with which they are in connection by continuity of structure, and which initiates the subsequent actions."

This theory is bold in the extreme. It has long been held that automatic function resides in the spinal cord; and further, as Carpenter says, that "the habitual movements of locomotion, and others which have become 'secondarily automatic,' may be performed by man (under particular circumstances) through the spinal cord alone, under the guidance and direction of the sensorial centres, or even without such guidance." But, comparative anatomy has taught us that the cerebrum is the seat of the mind. Yet, this proposition, we take it, may still stand, though the statement be

superadded that the cerebrum is reinforced in some of its functions by other parts of the nervous system.

Thus, the theory of Gall that the *cerebellum* is the seat of the sexual instinct and of the reflex actions necessary to its activity having been given over; and the doctrine of Flourens that the function of the organ is to coördinate complicated muscular actions having been called in question by Hammond and S. Weir Mitchell; we have been recently asked by the latter observer to believe that the *cerebellum* is "a great reinforcing organ, capable of being more or less used in *volitional muscular action*." Now Dr. Hammond may, with equal right, we presume, theorize that the spinal cord is also a reinforcing organ to the cerebrum, and that it is at times concerned in intellection and volition. It remains for him to prove the fact, or to show its probability. The latter task he has undertaken in this book.

He states that "in regard to the *treatment of somnambulism* there is not much to be said. In the great majority of cases the affection yields readily to appropriate measures; the most efficacious of which consists in means adapted to break up the habit. This may be done by waking the patient before the expected paroxysm, or by placing a tub of cold water so that the feet will be put into it on the attempt to leave the bed. Full exercise in the open air, the avoidance of luxurious habits, and sleeping with the head well raised, are always beneficial.

"Of medicines, I have no experience except with the bromide of potassium, and those calculated to improve the tone of the nervous system. The former I have used in two cases with entire success."

An abstract of the chapter on the "Treatment of Wakefulness"—that chapter consisting more or less of a lecture delivered by Dr. Hammond some time since—was given in this Journal Dec 31st, 1868; and has lately been copied into the *Dublin Medical Press and Circular*.

On the whole, we think the treatise on "Sleep and its Derangements" well worthy the accomplished Editor of the *Quarterly Journal of Psychological Medicine and Medical Jurisprudence*.

The London *Medical Times and Gazette* reports a case of double aneurism affecting the right external iliac and femoral and the right popliteal arteries, cured by pressure upon the common iliac and the femoral arteries.

## Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 18, 1869.

### THE PROPOSED FILLING OF CHARLES RIVER.

WE copy from the *Boston Daily Advertiser* of November 9th the medical testimony with reference to the proposed filling of the Charles River basin from the Mill-dam to Cambridge bridge. We do this because of the vast importance of the matter from a sanitary point of view. We invoke the influence of the medical profession throughout the State against this mad project.

An adjourned hearing on the proposed plan for filling in a portion of the tidal basin of Charles River in rear of Beacon Street, was held in the Green Room at the State House yesterday forenoon. The Hon. F. W. Bird presided.

Dr. Oliver Wendell Holmes was the first witness called. He said that as a resident and a moderate property owner in Charles Street, he was deeply interested in the preservation of the great ventilating area of Charles River. He would be one of the very many citizens of Boston who would be deeply affected in mind, body and estate, if the proposed plan was carried out; in mind, as losing one of the principal comforts and enjoyments of their lives; in body, as being cut off from the great air-reservoir to which in the hotter months they looked as the safeguard of health; in estate, because they had invested their property and their children's inheritance on the faith of a line which they believed to come practically under the safeguard of that ancient commination, "Cursed be he that removeth his neighbor's landmark; and all the people shall say amen."

He was not alone in danger from this threatened calamity. A very large number of persons, among them clergymen, women of moderate means, new residents and long-respected citizens, who had sought a salubrious home by the water-side, would be irreparably injured by the project. It was not extravagant to say that nothing short of a convulsion of nature—an earthquake, an inundation—a great fire, or the invasion of a hostile army, would produce greater dismay, or entail more insupportable losses than the realization of this revolutionary project. Leaving out of sight the law, equity and financial aspect of the question, and regarding the matter in a



medical point of view, the whole city, especially its western and northwestern sections, was interested in the preservation of this water area over which the southern and westerly winds, the hot and sickly winds of summer, blew cooled and purified. He could show by evidence of medical men, that the sanitary effects of the breeze from the water area were distinctly felt and recognized as far as Tremont Street on the southeast border of the Common, and north and east as far as the Massachusetts General Hospital, and it could not be doubted that its beneficent influence extended in some degree over the whole peninsula.

It would not do to talk about the tenants of this or that row of costly houses as being alone chiefly interested. Many of them, during the summer, were at the seaside or in rural districts. The great body of the residents of this section were dependent on the cooling winds of this ventilating area for such comfort and health as the hot months permitted them to enjoy in their modest dwellings.

The effect, then, of the proposed filling in would be that Charles Street and the streets east of it would receive a heated and very probably insalubrious air in place of the cool, wholesome breeze over this lake of ever-renewed sea-water.

The land gained by the filling in would be brought close to the manufacturing, noisy and smoky districts of Cambridgeport, and no expensive dwellings would be erected there. They must expect, then, to see the new territory occupied by noisy and smoky workshops, side by side with an inferior class of dwellings. They would rest on a basin of mud so nearly semi-fluid that, as Mr. Boshke said, the sea-wall would have to be buttressed to withstand the pressure of the perilous stuff it contained. The breezes that came over this quagmire, with its probable sources of smoke and gaseous products, would be a poor substitute for the present sweet and wholesome air produced by this reservoir.

To the inhabitants of Charles street and neighborhood, the air from this sheet of water was the very breath of life in the sickly season. West Boston Bridge, where the breeze was most felt, was a kind of out-of-door open-air hospital. Towards the close of a sultry day they might see poor mothers carrying their children to breathe the cool, pure air over the salt water.

A pure atmosphere was a matter of life and death to young children. For this he might refer to Dr. Dunglison's *Practice of Medicine*. In Dr. Collins's work, repub-

lished by the express authority of the Massachusetts Medical Society, it is calculated on solid data, that sixteen thousand children's lives have been saved, in about fifty years, in a single great hospital, by introducing a simple method of ventilation. He had no doubt the suppression of this ventilating area, as proposed, would cost thousands of infants' lives, to say nothing of its effects on adults. Dr. Holmes then referred to the writings of Mr. Chadwick and Dr. Youmans in confirmation of his statements, and proceeded to argue that a vitiated air, consequent on the proposed filling up, would have most unfavorable and unfortunate results on the patients of the Massachusetts General Hospital, the Eye and Ear Infirmary, and the Asylum for Aged Females. He confidently appealed to the officers of those institutions, with whom he had consulted, to confirm his statements.

The more they examined a great city the more they would see that it had a collective life like individual organized beings. It must have its food and its excretions, its brain in its municipal government, its eyes and ears to warn it and direct it, its muscles in the shape of its police and other active servants, and, above all, it must have its breathing organs. A closely-built city with no internal air-spaces might be compared to a fish or reptile which breathed through its gills; but a city inclosing large air spaces, to an animal breathing by lungs. Boston was peculiarly favored by having both sets of organs. The Common and Public Garden were one lung, and the water park the other. The projected plan seemed to him like a proposal to cut out one lung and sell it as the lights and liver of four-footed beasts were sold in the market. It was proposed that the State—for a consideration—should perform this operation on the strongest and fairest of her children. He seemed to hear the clink of thirty pieces of silver rattled in her ear to see whether she would be tempted to murder her offspring.

Dr. Holmes then spoke of the noble estuary of Charles River as being a crown of beauty and a source of pleasure to the city.

He then called the attention of the committee to a view of the case that had been strongly expressed in some quarters. There were legal rights, the exercise of which was the meanest and most aggravated of wrongs, because carried out under the protection of an irresistible power, without any risk to the actor, and because there was no remedy but silent submission. He

knew of mean men, but he did not believe in a mean community of American men, and the good people of Massachusetts did not form such a community.

The committee would pardon him for alluding to an impression widely prevalent that political managers were waiting to raise a cry of more money! to pay State taxes from the sale of city lands.

He believed that the project could be shown to be rash financially, dangerous to the harbor, threatening to the public health, ruinous to the beauty of their capital, unjust to the city and dishonorable to the Commonwealth.

The remonstrants never wished to see the State in a condition to justify the application of the famous verse (a little altered)

"Down a river did glide with wind and tide  
A pig with vast celerity.  
And the devil he grinned, for he saw all the while  
How it cut its own throat, and he thought with a smile,  
*Of the Bay State's financial prosperity.*"

In reply to questions by the committee, Dr. Holmes said he was not opposed to any improvement in Charles River, or elsewhere.

Dr. Holmes then stated that such was the confidence that Governor Andrew had in the Commissioners' line that he was one of the first to purchase an estate on Brimmer street, without an idea of ever being disturbed; and he ventured to say that if Governor Andrew were alive and before this committee the project would dwindle down to a very small matter.

Mr. Bird disclaimed that the committee had any settled plan, but had only adopted the proposed 500 foot channel as a basis for argument. The committee had by no words or action given parties to understand that they had a definite plan, but had been misrepresented by interested parties.

Mr. Shattuck informed the committee that though they had adopted no plan of action, he wished them to understand that he was present to oppose only the material filling of the flats north of Beacon Street.

Mr. Hill, for the city, disclaimed any other purpose on his part.

Dr. George Derby was then questioned by Mr. Ingalls as to the sanitary effect of filling the water basin, and considered that it would be very injurious to the purity of the air, and promotive of infantile diseases. He said the great benefit of the basin was from its great extent, and its position to allow free scope for the prevalent summer breezes from the west. A portion of the hill which was benefited by the air from over the river was as densely populated as any part of the city. The whole space,

though partially bare at low water, he considered more healthful than half the area covered by a deep and swift stream.

Mr. Shattuck offered a communication in the *Atlas and Bee* of March, 1860, against the entire filling of the Back Bay, for sanitary reasons, written by John A. Andrew, in support of the testimony that had been introduced. It was read by Mr. Hill. We make the following extracts:—

Boston, March 10th, 1860.

To George H. Snelling, Esq.:—

My Dear Sir,—I have neither been unob-servant of your efforts nor indifferent to their success, although I have not been present at your hearings before the legislative committee, concerning the Back Bay and the Common.

\* \* \* \* \*

I wish the legislature could have a fortnight's session here in August; or might spend any considerable time in Boston during the summer weather, and thus be led to observe how great a blessing (and to many thousands) this ancient Common is, merely regarded as a retreat from the closer quarters of narrow streets, crowded houses, huddled buildings and humble alleys whence thronging populations emerge to refresh the eye, the blood, the lungs, the cheek; yes, and the fainting soul itself.

Members would then perceive (what we do so clearly) that not merely to its own fifty acres of greensward pathway, pond and foliage is due the renovating influence of "*the Common.*" Whence come those soft and cooling breezes? what gives the sense of freedom and enlargement, as the landscape opens? Why is the Common always new and inexhaustible? Those who know not now may one day learn—too late. And thus it is:—Worcester and Berkshire fan it with the air from their broad lawns and hillsides.

The constantly renewed waters of the bay cool them as they pass. The waters themselves; the hills of Norfolk, just beyond them; the free, open sky; and all the variety and beauty and vastness of the landscape, as you look from Beacon Hill to the sunset, combine to create and complete a scene in which Nature pronounces a visible benediction, *felt*, though unheard and indescribable.

Shut out those flowing though quiet waters; build up row upon row of brick or stone for dwellings; people the space now open for the air and sunshine to drift through; cut off that open prospect; and the ten thousand toil-worn men and women and their children, whom we often see of a

summer Sunday afternoon thronging the Common, and tasting of its beauty and its streams of life, suffer a bereavement for which no compensation is promised them, and for which nothing but a miracle could compensate.

With the hope that we have not for the last time seen the Brookline hills,

I am very truly and faithfully yours,

JOHN A. ANDREW.

The committee then adjourned to 3 o'clock, P.M.

#### AFTERNOON SESSION.

The hearing was resumed at 3 o'clock.

Mr. Albert Boschke, civil engineer of Boston, was examined as an expert. He was of opinion that if a tidal basin was not kept open behind a harbor of a seaport, the result would be that artificial means would have to be used to prevent the formation of shoals in the harbor by the deposits of silt. In illustration of this view of the matter he called attention to the harbor of Baltimore, where there was no tidal basin behind, but where dredging machines had to be constantly employed to keep the harbor clear of shoals. He referred to various maps and plans in illustration of his statements. He reiterated some of the statements made at the last hearing of the committee. In his opinion no harbor could long exist without dredging or scour. In his opinion the tidal basin of Charles River ought not to be reduced. Its reduction would carry deposits of silt into the harbor which were now deposited in the catch or tidal basin.

We have not omitted the testimony of the civil engineer as given above, since it is brief, and at the same time interesting to all scientific men.

The medical testimony very properly dwells on the importance of fresh cool breezes in averting infantile diseases, of which cholera infantum in particular plays a prominent and a tragical part. We can fancy the Demon of that fell scourge, grinning with delight at the prospect of the hecatombs of victims which the consummation of the scheme in question would throw into his hands. Such a consummation would bring a new Massacre of the Innocents, with "Rachel mourning for her children because they are not."

But, the proposed deprivation of pure air would also undoubtedly swell the yearly bills of mortality with an increased list of deaths from typhoid fever—a disease which we all well know affects by preference early

adult life. It should not escape the attention of the men of dollars and cents that losses from this portion of the population are just so much taken from the wealth-creating department of the people.

We are encouraged to hope that we may have a full report of the statement of Dr. George Derby—the Secretary of the State Board of Health—for a subsequent issue. The above is no more than a mere hint of what he said.

MR. EDITOR,—The remains of the late Dr. Wm. T. G. Morton, who died suddenly in New York in the summer of 1868, were buried at Mt. Auburn last Saturday, Nov. 13th, in the presence of several physicians of the vicinity, and other gentlemen and ladies, among whom were Hon. Emory Washburn, William Whiting, and Alexander H. Rice, Messrs. Charles Dean, &c. The services were held in the chapel and conducted by Rev. Dr. Lothrop, of this city.

Dr. Morton's name has been so prominently placed before the community in connection with the discovery of the safety and certainty of etherization in capital operations of surgery, that it seems most proper that the following letters should at this time be published in our New England Medical Journal, printed as it is in Boston, where ether was first successfully used by Dr. Morton. The originals of these precious documents, and many more bearing upon the same points, are now in the possession of the heirs of Dr. Morton. Some of them, with the medal received from the National Institute of France, and the two crosses received from the Swedish and Russian governments, and the silver box presented by the unanimous vote of the Trustees of the Massachusetts General Hospital, will probably be ere long committed to the charge of the Massachusetts Historical Society. These five letters, which I propose you should publish, are of great historical value to the future fame of Dr. Morton. They place him among the greatest benefactors of our race, by the side of Jenner, of Watt, of Stephenson, and of all others who by their energy and persistent labors have given inestimable benefits to mankind.

I was acquainted with the introduction of ether into surgical use at the Hospital from the earliest hours, and taken in connection with these letters I feel convinced of the truth of the following propositions.

*First*, That neither Dr. Warren nor Dr.

Hayward, who everybody admits were the persons who first operated successfully upon patients, after they had previously inhaled ether administered by Dr. Morton, knew at the time of these earliest operations, the exact nature of the substance employed by that gentleman.

*Second.* Both of them speak of Dr. Morton, and of no one else, in connection with these first experiments.

*Third.* Dr. Hayward's single letter and the first of Dr. Warren's, were written three days after those operations, and consequently those surgeons may be supposed to know perfectly well to whom they were indebted for the valuable suggestion made.

*Fourth.* Dr. Warren's second letter was written more than two months after these first successful operations, and when the fame of the discovery of the anæsthetic properties of ether had spread almost, if not quite, over the civilized globe. In that letter the writer tersely, but without equivocation, asserts that to "the best of his knowledge and belief" he, Dr. Warren, "has never heard of the use of sulphuric ether by inhalation as a means of preventing pain in surgical operations, until it was suggested by Dr. Wm. T. G. Morton, in the latter part of October, 1846."

I submit, therefore, that I am right in my statement that these letters are invaluable in their relations to the future fame of Dr. Morton, and that they ought to prove to every unprejudiced mind that those eminent surgeons under whose auspices ether was first administered by Dr. Morton at the Massachusetts General Hospital, meant exactly what Dr. Warren asserts in his last letter, viz., that to Dr. Morton alone is due the first suggestion of etherization in surgery, and to him, therefore, immortal honor is due for this great boon to the whole human race. Yours very sincerely,

HENRY I. BOWDITCH.

#### No. I.

DEAR SIR,—I write at the request of Dr. J. C. Warren to invite you to be present on Friday morning, at 10 o'clock, at the Hospital, and to administer to a patient who is then to be operated upon, the preparation which you have invented to diminish the sensibility to pain.

Yours respectfully,

C. F. HEYWOOD,

House Surgeon to M. G. Hospital.  
Dr. Morton, Tremont Row.

Oct. 11, 1846.

#### No. II.

Boston, Oct. 17, 1846.

I hereby certify that I have twice seen the administration of Dr. Morton's application for the prevention of pain—that it had a decided effect in preventing the sufferings of the patients during operation, and that no bad consequence resulted.

J. C. WARREN.

#### No. III.

On Saturday last, at the Hospital, I removed a tumor from the arm of a patient who had immediately before inhaled something prepared by Dr. Morton of this city. The operation lasted seven minutes; the patient gave no indication of suffering. She assured me afterwards that she did not suffer, nor has she to the present time experienced any inconvenience from the inhalation.

GEO. HAYWARD.

Tuesday, Oct. 20, 1846.

#### No. IV.

I certify that I assisted in the administration of Dr. Morton's Preparation, to two patients operated upon by Drs. Warren and Hayward at the Massachusetts General Hospital on the 16th and 17th of October—that under its influence both these individuals submitted to operations lasting from five to ten minutes, without suffering, and that they speedily recovered from its effects.

C. F. HEYWOOD,

House Surgeon Mass. Gen. Hospital.  
Oct. 22, 1846.

#### No. V.

Boston, Jan. 6, 1847.

I hereby declare and certify to the best of my knowledge and recollection, that I never heard of the use of sulphuric ether by inhalation as a means of preventing the pain of surgical operations until it was suggested by Dr. Wm. T. G. Morton in the latter part of October, 1846.

JOHN C. WARREN,

Prof. of Anatomy and Surgeon  
of Mass. Gen. Hospital.

We were permitted to be present at the services in respect to the memory of Dr. Morton, and are thus enabled to present to our readers the following remarks made at the grave by Dr. Henry I. Bowditch, of this city:—

All civilized communities, and more especially the members of the medical profession residing in them, owe a debt of gratitude to Dr. Morton that is incalculable and which can never be repaid.

As a man and as a physician, I wish now to pay a small tribute of respect to his

memory by throwing a few handfuls of earth upon these dead remains, once the tabernacle of his living, earnest soul. I ask no one to follow me in this apparently poor and trifling service, but I would fain hope that not a few of those now present may think as I do that it is a sacred privilege to be able on this occasion thus publicly to testify their high appreciation of the great value that his life and labors have been to mankind.

Wherever hereafter human suffering shall be liable to occur, let us hope that the blessing of etherization will also be found, and with it ought always to go the never-ending, always increasing fame of Dr. Morton.

It is perhaps needless to add that his remains were covered by the hands of friends.

We cannot forbear alluding to the fact that to the shame of a great and powerful nation his family still remain without that substantial recognition due to him for one of the greatest blessings ever conferred on humanity. The thousands whose sufferings were alleviated in the rebellion is alone sufficient evidence to justify a claim that long ago should have been cancelled. If the General Government is still deaf to the appeals of humanity, let our own State, in which he made his first demonstration and which should be the first to grasp the honor of advocating his claim, take the matter in hand. It is a subject not unworthy the consideration and action of our State Board of Health, and we feel sure if it was presented with the sanction of that body of men for legislation, that justice *must* be done. There is not a member of the Legislature who could not satisfy himself from among his constituents as to the propriety of the claim on the State. When Massachusetts has made her acknowledgment, the other States would have a noble example for the consideration of the authorities at Washington.

H. H. A. B.

**HARVARD MEDICAL SCHOOL.**—The winter course of lectures was opened on the 3d inst. with an introductory address by Dr. R. M. Hodges, Adjunct Professor of Surgery and Clinical Surgery. It was replete with sound advice and practical suggestions, and commanded the closest attention of a large audience from its beginning to

its end. The school was never in a more prosperous condition. The number of matriculants this year exceeds all previous ones.

**HÆMATURIA CAUSED BY THE INTERNAL USE OF SULPHATE OF QUININE.**—B. F., aged 13 years, had several paroxysms of chills and fever. Quinine was prescribed by the parents on two occasions, which was followed immediately (both times) by hæmorrhage from the mucous membrane of the urinary organs. I was called (August, 1867) to see the boy, and, contrary to the mother's wish, I prescribed ten grains of quinine, to be divided in three doses, and to be given next day, with orders to suspend the medicine, if he should have another attack of the hæmorrhage.

An hour after the third dose had been administered, the patient had a profuse hæmorrhage from the urinary passages.

I advised the parents to dispense with quinine altogether, and prescribed other febrifuge. My little patient was removed to Opelousas, where medical attendance could be obtained at any hour, in case of emergency. An eminent physician of that town was called in to attend to the boy, and again quinine was prescribed and administered, and followed by the same kind of hæmorrhage. He got well after a severe spell of typhoid fever.

The boy is again under my treatment, suffering with chills and fever (tertian). Two weeks ago, his father prescribed and administered three or four doses of an infusion of *cinchona* and Virginia snakeroot, which was followed by hæmorrhage of same organs.

It has been my misfortune to have had another similar case to treat last fall. To a little girl seven years old, quinine was administered in different ways, but was invariably followed by hæmorrhage of the urinary passages.—*New Orleans Journal of Medicine.*

DR. ROBERT LEE has placed his anatomical and pathological collection in the Museum of the University of Cambridge. This collection includes those remarkable directions which once gave rise to so much controversy.

In January last there were 45,153 insane paupers in England and Wales.—*Medical Press and Circular.*

BAKERS are said to be the *Alum-ni* of London tradesmen.

## Medical Miscellany.

In treating a case of poisoning by the cyanide of potassium, which recovered, H. P. Stearns, M. D., of Hartford, Conn., says:—"I used the tube of the stomach-pump, as the patient could swallow nothing, for the purpose of introducing stimulants into the stomach, rather than for the purpose of emptying it, though this was also done. The action of hydrocyanic acid being so very rapid, I had little expectation of lessening its effects by this means; but as this poison is more speedily eliminated from the system than most others, and he had already lived fifteen or twenty minutes after taking it, my design was to stimulate the almost paralyzed heart, if possible, to activity until elimination was effected. I used whiskey, as this was at hand, and, in fact, it did not occur to me in the excitement of the moment to use ammonia, though this is the stimulant most highly recommended, and doubtless may be of service in some cases. It appears to me, however, that in all cases where whiskey can be introduced into the stomach by means of a tube or otherwise, we should expect more permanent effects than from ammonia, and consequently afford the patient a better chance for recovery."—*American Journal of the Medical Sciences.*

A MISSOURI homœopath in August last volunteered his professional services in the case of a sick infant, six months old, for which he prepared three powders. The first dose so effectually quieted the little patient by lulling it into the sleep of death, that the doctor on being sent for again, thought it a pity that the remaining two powders should be wasted, and accordingly carried them away with him. At the Coroner's inquest, he produced two powders which were shown to be in different paper from the one administered; and was finally forced to confess that the drug used was morphine. Thus is another item added to the list of infant mortality caused by the abuse of narcotics, which is becoming so common in the homœopathic school.—*N. Y. Medical Gazette.*

**PARLOUR DAYS.**—Blood-letting, which was considered necessary, during the last century, for every one, whether sick or well, every spring and fall, was performed by the country surgeons, every Sunday morning, at a charge of sixpence each. Bleeding a lady in bed, in the reign of Charles the Second, 10s., and for a gentleman 1s. or 2s. 6d. Bleeding by the year was done for 16s.

Superstition had marked certain days in each month as dangerous for blood-letting, and these were called *parlous* days. In July, the first, seventh, twelfth, thirteenth, twentieth and twenty-fifth were of the above kind.—*Ibid.*

**HEALTH OF THE FRENCH EMPEROR.**—His chief disease has been a fissured hæmorrhoidal tumor, which has prevented him from walking about, sitting on horseback or in a carriage, and which has obliged him to lie down most of the time, or walk awkwardly with his legs far apart, and stooping forward with the bend at the hip joints.—*Lancet.*

BUT few details of the International Medical Congress in Italy have as yet appeared.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9 A.M., Massachusetts General Hospital, Med. Clinic; 9 A.M., City Hospital, Ophthalmic Clinic; 10 A.M., Surgical Lecture; 9 A.M., Boston Dispensary; 11 A.M., Massachusetts Eye and Ear Infirmary.  
TUESDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic; 11 A.M., Massachusetts Eye and Ear Infirmary.  
FRIDAY, 9 A.M., City Hospital, Ophthalmic Clinic; 10 A.M., Surgical Visit; 11 A.M., OPERATIONS; 9 A.M., Boston Dispensary.  
SATURDAY, 10 A.M., Massachusetts General Hospital Surgical Visit; 11 A.M., OPERATIONS.

**BOOKS AND PAMPHLETS RECEIVED.**—Transactions of the Twenty-fourth Annual Meeting of the Ohio State Medical Society, held at Columbus, June 8, 9 and 10, 1869. Pp. 180.—Pepsin: Its Physiological and Therapeutical Actions. Remarks made before the New York Medical Journal Association, by J. S. Hawley, A.M., M.D., Greenpoint, N. Y. Pp. 20.—On the Treatment of Uterine Catarrh. By Joseph Krammerer, M.D., Physician to the German Hospital and Dispensary, New York. Pp. 18.

**MARRIED.**—At South Boston, 10th inst., Marshall L. Brown, M.D., to Mrs. Helen A. Chilis, both of Winchendon.—At Boston Highlands, 11th inst., Arthur H. Nichols, M.D., to Miss Elizabeth F. Homer.—At Stoughton, 9th inst., Simeon Tucker, M.D., to Miss Angeline Clark.

## Deaths in sixteen Cities and Towns of Massachusetts for the week ending Nov. 13, 1869.

Cities and towns.	Number of deaths in each place.	Consumption.	Prevalent Diseases.—Pneumonia.	Typhoid Fever.	Croup.
Boston . . .	89	19	7	3	0
Charlestown .	18	6	0	2	1
Worcester . .	10	1	0	1	0
Lowell . . .	17	1	1	1	1
Chelsea . . .	9	1	0	0	0
Cambridge . .	7	1	1	0	1
Lawrence . .	7	1	0	2	1
Springfield .	10	3	1	0	0
Lynn . . . .	10	2	0	0	0
Pittsfield . .	7	0	0	1	0
Gloucester . .	4	0	0	0	2
Fitchburg . .	4	0	0	1	0
Taunton . . .	6	1	0	0	1
Newburyport .	2	1	0	0	0
Somerville . .	2	1	1	0	0
Fall River . .	11	5	0	0	2
	204	43	11	11	9

From scarlet fever three deaths occurred in Boston, two in Worcester and two in Pittsfield.

GEORGE DERNY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON for the week ending November 13, 80.** Males, 32—Females, 48.—Accident, 2—apoplexy, 1—asthma, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 1—cholera infantum, 1—consumption, 20—convulsions, 1—cyanosis, 2—debility, 5—diarrhea, 1—dropsy, 1—dropsy of the brain, 2—epilepsy, 1—bilious fever, 1—scarlet fever, 3—typhoid fever, 3—gangrene, 1—gastritis, 2—disease of the heart, 2—hæmorrhage, 1—hernia, 1—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—inflammation of the lungs, 7—marasmus, 1—old age, 2—paralysis, 1—peritonitis, 1—premature birth, 1—puerperal disease, 1—rheumatism, 1—unknown, 4—whooping cough, 2.

Under 5 years of age, 24—between 5 and 20 years, 9—between 20 and 40 years, 17—between 40 and 60 years, 22—above 60 years, 8. Born in the United States, 47—Ireland, 26—other places, 7.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, NOVEMBER 25, 1869.

[VOL. IV.—Nos. 20-21.]

## Original Communications.

### TUBERCULOSIS OF THE IRIS.

By Dr. P. N. GRADENIGO, Ophthalmic Department of the Civil Hospital of Venice.

[Translated by B. JOY JEFFRIES, A.M., M.D.\*]

THE study of pathological anatomy had long ago established beyond doubt the formation of tubercle in each of the several tissues of the organism, although till now tubercle of the eye has not been included in ophthalmic nosology. This important discovery was reserved for the ophthalmoscope. Thanks to the investigations of Manz, Cohnheim, Graefe and others, this morbid product may at present be easily recognized at its very commencement in the bottom of the living eye, not only to confirm a doubtful medical diagnosis, but often as the single but most important precursory symptom of this fearful disease, which will later manifest itself in other vital organs.

The coincidence of tubercle of the choroid with acute tuberculosis is more frequent than supposed. Cohnheim found tubercle of the choroid in fourteen successive *post mortems* of acute general tuberculosis. To the ophthalmoscope these appeared as scattered nodules from an eighth to half a millimetre in size, and of a yellowish white and gray color; principally on the portion of the fundus accessible to the mirror, viz., in the region of the optic papillæ. Their form is always round, the pigmented epithelium covering them gradually giving way, and finally disappearing without being massed on the periphery, as takes place with other inflammatory products of the fundus.

The cornea also may be the seat of tubercle. Our colleague, Prof. Aveoleo, in 1859, called the attention of practitioners

to some peculiar products in the substance of the cornea, found with phthisis, products which, under the microscope, presented all the characters of tubercle. Later, he published several observations on this point. The *iris* has, however, till now been thought to be exempt from this disease.

So far as I know, no one has yet described any similar case, and much less demonstrated by the microscope the existence of tubercle in the iris. That most exact observer, Wecker, in the second edition of his very valuable work published the past year, remarks that the "*tubercular diathesis does not tend to localize itself in the iris.*"

These few remarks, therefore, show the importance of this case of tubercular iritis, occurring in the ophthalmic ward of the hospital.

An iron-worker, æt. 21, entered August 16, 1868. The trouble in the right eye had lasted about three months, not yielding to some local remedies. He suffered but slightly, and sought regular treatment for the gradually diminishing vision in this eye. His parents died insane, but were otherwise healthy. Has had a variety of scrofulous troubles, always led a regular life, quite temperate, and asserting that he has never known a woman. Reported by his companions as a steady workman, and of a kind and affable disposition. Medium height, well nourished, skin pale and delicate, a slight, limited blush of the cheeks, muscles flabby, head large, cranium badly shaped and chest contracted. Appetite voracious. No trouble of the circulation; respiratory and digestive organs normal.

The condition of the right eye was as follows:—Lids flabby; conjunctiva slightly œdematous; injection round the cornea, rosy-red, shining, deep; cornea transparent, except three or four points of some minute interstitial deposit, circular, isolated, the size of the head of a fine needle, of grayish-white color, located beneath Bowman's elastic layer, and others deeper, reaching to the anterior chamber down to Descemet's elastic membrane. The anterior chamber is reduced, the aqueous humor a little turbid.

\* I have translated from the Italian Ophthalmic Journal the following case of tuberculosis of the iris, as I am not aware of the report of any similar observation. I would add that the Civil Hospital in Venice has an out-clinic for ophthalmic patients, and fifty beds for the reception of those requiring admittance for operation or treatment.

B. J. J.

By lateral illumination, the blue iris appears velvety and altered in structure. Six or seven little corpuscles, quite distinct, round, the size of half a millet seed, and of a yellowish-white, or slightly reddish color, jut out from the stroma of the iris into the anterior chamber, occupying mostly the external and lower segment between the greater and lesser circle of the iris.

The pupil is contracted and misshapen by several posterior synechiæ; the anterior capsule mostly clouded. The globe is not tense, and no pain in it or in the course of the trigeminal branches; lachrymation diminished, the patient complaining only of frequent photopsia and an uncomfortable sensation of heat and burning in the upper lid. Vision in this eye corresponds to the opacity of the media, reading Giraud-Teulon's No. 20 at 1 foot.

During the first few days of his entrance, he had the classic treatment for iritis and its sequelæ: atropine, calomel, paracentesis, &c., but without the slightest effect. The iris did not yield to the mydriatic; its cloudiness increased, the whitish corpuscles above described remaining immovable on its surface. The cornea became less transparent, and the tension of the globe began to diminish. To induce absorption and resist the slow process which threatened atrophy of the bulb, cold lotions were used, but without effect. In view of the fact that syphilis seemed excluded, the long duration of the disease, and its not yielding to treatment, and all the ordinary signs of open inflammation being wanting, suspicion began to be entertained that these little bodies, which at first I thought the sequelæ of iritis, were instead the *proximate* and *immediate* exciting cause—that is to say, that we here had a new and specific form of iritis, *tubercular iritis*.

In support of this suspicion there occurred, two days afterwards, a spontaneous and abundant hæmophthalmia, which gradually absorbed, and again recurred without known cause. Careful inquiry, moreover, revealed the fact that the patient had always been scrofulous, had had hæmoptysis the previous year, and lost a relative from slow tuberculosis.

Careful auscultation and percussion gave no pathognomonic signs for precise diagnosis. Respiratory murmur extensive, dry and rougher than normal; some râles at apex of right lung. Local treatment was now limited to atropine, and attempting to ameliorate the general condition, which latter, nevertheless, during the patient's prolonged sojourn in the ward, became daily

worse. Cod-liver oil was added to nutritious and digestible food. Exercise and out-door air were allowed. Meanwhile the trouble in the eye remained stationary, a progressive diminution of vision being noticed; when in the left eye appeared, with but slight irritative phenomena, the little bodies on the iris, having all the characters of those observed in the right eye, but without pain or the peculiar signs of iritis.

In the hope that microscopic examination would determine the tubercular character of these little tumors, excision of a fragment of the iris was attempted in the right eye. Unfortunately, copious bleeding at the first insertion of the forceps, friability of the tissue and the numerous synechiæ prevented my effecting it.

No reaction followed this attempt, and the morbid process did not alter its appearance in any way. A few days afterwards, *i. e.* some three months after entrance, a most violent colic suddenly occurred, accompanied with obstinate vomiting. The tongue became dry and red, the abdomen distended and painful to pressure, thirst insupportable and the pulse feeble. Copious diarrhœa followed and marked loss of strength. Treatment directed by the symptoms relieved this attack. But the fever continued, with burning heat by day and profuse sweating by night. The redness of the tongue spread to the palate and to the pharynx, soon accompanied with troublesome and persistent cough, at first dry and then with abundant purulent secretion. Respiration hastened, and dyspnoea.

The patient was transferred to the medical department, where he died on the eighth day from the time of taking to his bed. *Autopsy*, twenty-four hours after, showed enormous quantities of miliary tubercles, some fresh, some already softening, not only in the lungs, but in the liver, spleen, mesentery, glands, and under the mucous membrane of the intestine. [The details of the *post mortem* are omitted.—TRANS.]

These *post-mortem* appearances left no doubt as to the character of the disease which caused death, and the microscopic examination confirmed the diagnosis made two months previous in reference to the affection of the iris.

The two globes were carefully removed and placed in Müller's fluid. These were examined some days subsequently, having become sufficiently hardened, and the following alterations are noticed:—Size and shape normal. The cornea of the right eye was thickened to twice that of the left, the latter being healthy. Adherent to its



internal surface and projecting into the anterior chamber, were seen several nodules, rather soft, of a whitish cheesy substance, readily separated from Descemet's membrane. The anterior chamber rather reduced. The iris adherent to the capsule of the lens at several points, thickened and discolored. Numerous yellowish-white corpuscles, similar to those in the cornea, were scattered in its parenchyma, specially on its anterior surface, near the pupillary margin, and also on the periphery.

The sclerotic, lens, choroid and retina apparently normal. The vitreous slightly turbid, and rather more consistent than usual. Near the optic nerve entrance, projecting into the choroid, were noticed two or three isolated granulations, of whitish color, very similar to the products above mentioned.

In the left eye nothing abnormal was noticed, except some of the little tumors on the iris, identical with those in the right eye. The microscopic examination of many of these nodules taken from both eyes, revealed a histological structure having all the characteristics of tubercular formations. Desiring, however, the opinion of an observer more competent to make such an examination, I sent my friend Dr. Richetti some of these nodules *taken from the iris*, with the request to record the microscopic examination. He was kind enough to write me the following careful report.

"The yellowish miliary nodule pressed between the slides and placed under the microscope, was found to be composed solely of a mass of cells; some of them on the edge of the preparation were isolated. The larger number were perfectly round, with fine outline, the contents feebly granular, having one or more nuclei, bright and defined. Some of the cells, however, in the centre of the uniformly granular contents, exhibited a single nucleus, very large and quite round; with a nucleolus in its centre.

Some of these cells were partly destroyed, others perfectly preserved; the broken ones appeared corroded at their margins, the granular contents escaping.

These cells were the size of blood corpuscles, some rather larger. Some had a lengthened, pointed form, lanceolate, resembling epithelium cells, but the contents were always the same.

Although the determination of tubercle by microscopic examination is one of the most difficult tasks in microscopy, I do not think that the characteristics of tuberculous formation could be more marked than in this specimen. The so-called tubercle corpus-

cle (Lebert), as is known, has neither a simple nucleus nor is it solid, but rather a cell such as we had in our preparation in infinite number. In regard to the long cells, others ovoid, fusiform, lanceolate, distinct from the round ones, they are described by Virchow in his lectures on tubercle of the lymphatic glands, where he speaks of the variable consistence of tubercle according to its locality and age. Two remarks may finally be made, one referring to the case clinically and the other to our preparation.

1. I think the granulation found is of recent formation, because I could not find outside of or within these cells nuclei that might have been subjected to fatty metamorphosis.

2. Finding cells, which as remarked had most delicate outline, so well preserved, induced me to think that the Müller's fluid used to preserve the microscopic preparation had also a preservative influence on the microscopic elements accidentally or normally occurring in the organism. I therefore shall make use of this with tubercle of the other organs."

If, therefore, deduction can be made from a single case, we may conclude, 1. That the iris, like the cornea and choroid, may be the primitive seat of tubercular material. 2. That such a form of disease may be diagnosed in the living, even when in other organs we have no certain signs of tubercular diathesis. 3. That here, as in tubercle of the choroid and cornea, death occurs from general acute tuberculosis.

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#### THREATENED ABORTION. SUCCESSFUL TREATMENT BY CHLORATE OF POTASH AND OPIUM.

By JOHN W. TRADER, M.D., Sedalia, Mo.

THIS case may be of interest to the profession in establishing the theory advanced by Sir Jas. Y. Simpson of oxygenizing the blood in those cases where an anæmic condition exists.

Mrs. A., who had been married some six or eight years, has miscarried at least once each year of her married life at about the sixth month. In her last pregnancy I was called upon as her medical adviser, and, from her existing condition, was led to believe that she could never give birth to a healthy child. She was anæmic and completely prostrate. The least exercise, and in fact the erect position, would often bring about uterine contractions, and sometimes hæmorrhage. She was melancholy and sad.

—expecting that fate would merely duplicate a page of her former history. I used the chlorate of potash in combination with opium with the happiest effects. Some few doses of iron were given, and some other incidental medication was resorted to—such as cathartics, citrate of magnesia, &c., but nothing which seemed to have the controlling influence of the chlorate. When we gave it she was better—when we suspended it she grew worse. I used an aqueous solution of about the following strength:

R. Potas. chlorat., ʒij.

Elix. opii, ʒss.

Aque pur. ʒiv. M.

Sig. teaspoonful every three or four hours, as required.

I had tried the opium alone without the desired effect. She was compelled to keep her bed the most of the time, and at times suffered a great deal, but at the end of nine months she was delivered of a full-grown, healthy child. Four months have elapsed, and both are doing well.

#### CASE OF TRIPLETS.

By JAMES F. HARLOW, M.D., Boston.

ON the morning of October 22d, a little after midnight, I saw Mrs. G., a native of Westford, Me., aged 31, in her sixth confinement. From her statements, I should judge she was about seven months advanced. At ten minutes before 2, A.M., she gave birth to a female child, weighing five pounds. At 2 o'clock, another girl was born, weighing one and a half pounds; and immediately afterwards a third girl, weighing four pounds. The placenta, connected together so as to form one mass, soon followed.

The labor was a remarkably easy one. The larger children were plump and vigorous; the small one was feeble and emaciated, and died on the 25th. The mother and the other two are doing well.

At no one of her former confinements was there more than one child. Of her previous children, three girls are living; a boy and a girl having died.

Her mother had twelve children, two of which were twins, and all except one are now living. The patient is of a nervous-bilious temperament, moderate size, and not robust. Her husband, aged 36, is large and healthy.

As triplets occur only once, on an average, in about ten thousand deliveries, such a case would seem worthy of notice.

#### Selected Papers.

##### CONCEALED ACCIDENTAL HÆMORRHAGE OF THE GRAVID UTERUS.

FROM a paper on the above lesion, read before the Philadelphia Obstetrical Society, by WILLIAM GOODELL, M.D., and published in the Transactions of that Society, we make the following extract:—

The importance of early interference is well shown from an analysis of the foregoing tables. Thus, out of forty-one women who died undelivered, in twenty-five of them the membranes were unruptured. Out of ninety-three cases, forty-three of them were left to the unaided efforts of nature, and of these thirty-two perished; whilst only fifteen deaths occurred in the fifty in which artificial aid was resorted to. The methods of interference were as follows:—In twenty-four cases the membranes were punctured, with six deaths; in nine, the forceps were applied, with two deaths; in fourteen, version was resorted to, resulting fatally in five; whilst the three cases of embryulcia, viz., Nos. 1, 47, 89, were all unsuccessful.

So soon as an accurate diagnosis is made out, the rule should be imperative to deliver the woman as soon as possible, and thus lessen the bleeding surface; for as the hæmorrhage is a concealed one, it is safer to act on the assumption that it will continue until the birth of the child or the death of the woman. By simply piercing the membranes the same benefit may not accrue as in the franker forms of accidental hæmorrhage. In the latter, by an easy evacuation of the waters the hæmorrhagic area is rapidly diminished. In concealed flooding this drainage will effect nothing, should the adherent margin of the placenta not yield; and indeed, even if the placenta should become detached the blood may go on accumulating behind the membranes until it shall fill up the space originally occupied by the liquor amnii, thus rendering the condition of the woman still more perilous. To avoid this danger, after perforating the membranes a very tight binder and compresses should be applied over the abdomen to prevent any further distention, whilst other means are resorted to.

This method of treatment has been questioned by no less authorities than Baudelocque, Puzos, and others, who contend that the waters should not be drained off, or the womb emptied of its ovum, unless labor-pains be present or can be aroused,

and the os be sufficiently dilated to admit the hand. The former eminent obstetrician supports this opinion by the following fallacious dictum:—"The hæmorrhage cannot become so great as to effect such changes in the volume of the womb, without causing the expulsive action to be keenly solicited, and this soon responds by pains first resembling and ultimately becoming true labor-pains."\* This opinion was also entertained by Madame Boivin, as we have already shown.

But an analysis of the cases here collected proves the contrary, and lays down as axioms:—(a) that the greater the hæmorrhage, the greater will be the syncope; (b) that the pains of labor will become feeble in direct proportion to the severity of the collapse; (c) that consequently they are generally absent in the worst cases of hæmorrhage, and cannot be aroused by the most powerful stimulants and oxytocics, so long as the uterus is over distended; (d) but that when the membranes are pierced the vital contractility of the uterine walls condenses them, and usually provokes their organic contractility, unless the system be too far depressed.

It is well to recollect that in some cases there are feeble but intermittent condensations of the uterine fibres, which have undoubtedly been mistaken by observers for labor-pains. But these closely resemble those false labor-pains which only affect the fundus, and do not dilate the os uteri; they are merely instinctive efforts on the part of nature to resent the presence of intruding clots. In the majority of cases of internal flooding, the os dilates passively; but this is due not to the natural consequences of labor, but simply to the flaccidity of the cervix and surrounding tissues, resulting from the state of collapse, and also to the *vis a tergo* of an excessive uterine distention. Hence it follows that the dilatation of the os, in the absence of labor-pains, is in itself a speaking evidence of a serious hæmorrhage. Under such circumstances it therefore behoves us not to rely upon nature to accomplish this dilatation, but to rupture the membranes early, apply the bender, and, if necessary, introduce Barnes's dilators, which are in fact more efficient than the bag of waters for rapid expansion of the os, and will obviate any necessity for incising the margin of a rigid os, as happened in one case.

If the os be dilatable, immediate delivery

should next be attempted, either by the long forceps or by version. Each measure will have its advocates; but here, in our opinion, version by the feet meets all the requirements, and is decidedly preferable to the forceps; especially as the child very universally perishes at an early stage of the accident, and therefore no considerations for its safety are to embarrass the efforts at a speedy delivery. If the practitioner have attended his patient in previous labors, and knows that her pelvis is ample, he is warranted in applying the forceps, provided there will be no delay in dragging the head through an imperfectly dilated os, and no subsequent detention at the perineum. Under the most favorable circumstances a delivery by the forceps is always accompanied by more or less delay. Should the head become locked at the brim, as in my own case, or in the pelvic cavity, the physician would indeed have every reason to regret that the uterine cavity had not been previously emptied as much as possible, both by the delivery of the child's body, and by the extrusion of all the clots which the operation of version would necessarily involve.

In all other dangerous complications of labor requiring immediate delivery, version deservedly holds the first rank, because, by the bi-manual method, it can be resorted to at a much earlier period than the forceps. I have here, however, designedly placed these two operations on the same level as regards time, for when the hand can pass the os uteri, the forceps can often be applied; and in my opinion, to perform version in a case of concealed flooding, the whole hand will require to be introduced, from the fact that the bulging in of the placenta or membranes, by the extravasation behind them, would present a ledge over which the breech or body of the child could not be made to glide by the feeble purchase of the bi-manual method of version.

As ergotism cannot be induced in cases of grave hæmorrhage, ergot should be freely given, in order to counteract the tendency to relaxation of the uterine fibres, and to provoke true labor-pains after the rupture of the membranes. If, however, version be demanded, it may be prudent to withhold this drug until that operation has been performed. Of course, active stimulants, opium in full doses, beef-tea, &c., must not be spared. Warmth to the cold extremities is very grateful, and by derivation is often useful in arresting hæmor-

\* L'Art des Accouchements, paragraph 1083.

rhage; perhaps, according to Chapman's theory, it would prove still more efficacious if applied also to the spine.

Finally, whenever the symptoms are obscure, and the diagnosis doubtful, act as though the case were one of concealed hæmorrhage, and follow the precept laid down by Theodore Mayerne for the management of floodings, "*præstantissimum remedium est factus extractio.*"

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

Oct. 11th, 1869.—*Icterus Neonatorum; Death on the Sixth Day, from Apoplexy—probably Meningeal.*—Dr. Morland reported the case:—

"Mrs. —, 33 years old, born in North Carolina, white, a strong, healthy woman, of large frame, was taken in labor with her first child, on Saturday, Oct. 3d, 1869. The premonitory pains came on about 7 o'clock, A.M., of that day. Active labor, with regular, continuous pains, was established about 9 o'clock, P.M., and continued, with gradual advance of the head, until about 5 o'clock, A.M., of Sunday, the 4th of October. At this time the head seemed impacted, and neither advanced during a pain, nor receded at its cessation; the position was with the face turned towards the left sacro-iliac synchondrosis, the occiput rather forwards, looking to, or under, the right groin of the mother. Deeming a resort to forceps necessary, I sent for Dr. Gray to see the patient, and to bring his forceps. As he fully agreed with me, I applied the forceps and delivered the woman promptly. No unusual compressing force was used, although powerful effort was requisite to bring the head into the world. Considerable delay occurring with the shoulders, a finger was hooked into the right axilla and traction made with good effect. The child's mouth was full of mucus, but, this being removed, it soon cried well, and was sufficiently lively. There was so much delay in the delivery of the placenta, that its removal was effected by the hand introduced into the womb. Flowing was rather profuse, and brandy and water was administered to the mother once, and a full dose of laudanum subsequently. She has done remarkably well throughout, never having had an untoward symptom thus far; no laceration of the perineum, nor

ill effects discoverable from the use of the forceps.

The child began to grow yellow on the second day, and finally became extremely jaundiced. It was noticeably somnolent on the second, third, and fourth days; nursed but little and inefficiently; and, from the fourth day, not at all. The motions were very dark and exceedingly offensive. The urine was free, but deeply yellow. On the fourth day it began to be moderately convulsed, and would give sudden, sharp, loud cries, as if in pain, the fingers—especially those of the right hand—being firmly driven into the palms of the hands, and the forearms semi-flexed and so held. It would pass gradually from these spasmodic accesses into its usual somnolent, quiet state. The respiration was accelerated and somewhat labored during the spasmodic periods, but perfectly tranquil afterwards. The right eye was not voluntarily opened after the fourth day. The child died quietly on Saturday night, October 9th, about six days from birth.

"Very little was attempted remedially. The mildest purgation was induced by a half teaspoonful of castor oil, following two grains of calomel and three or four of magnesia. The child seemed easier for a time. It vomited once or twice, a dark-colored matter. The nurse stated that blood was vomited, and also voided by the bowels; but, as everything was pertinaciously thrown away, I was unable to verify the statement. A warm bath, of only two minutes' duration, was once resorted to, when the spasms seemed most violent. The child swallowed the breast-milk to the last, when carefully administered with a spoon.

"A considerable imprint of one of the blades of the forceps, just above the right eye, disappeared almost entirely on the day after delivery, and the head seemed wholly normal in shape subsequently.

"On Sunday, October 10th, at 2 o'clock, P.M., Dr. Ellis examined the body, and his report is appended. The child weighed, just after its birth, eleven pounds."

*Post-mortem Examination.*—"The whole right hemisphere of the brain was covered with a thick black coagulum, soft and quite recent at the vertex, but very firm at the base, where it was attached to the base of the skull and to the brain itself. It was difficult to say whether the cerebral substance had been lacerated, as its adhesion to the coagulum would prevent a separation, the natural consistency of the organ, at this period of life, being very slight. It

is probable, however, that the hæmorrhage was meningeal. The right ventricle contained a recent coagulum and considerable serum; the left, an excess of bloody serum.

"The cones of the kidneys contained the linear formations of uric acid seen in infants.

"The other organs were normal. The gall-bladder was filled with dark bile, and the gall-ducts contained enough of the secretion to give them a yellow color."

Dr. White asked if there was any impediment to respiration in the case.

The jaundice of new-born children has been referred to improper oxidation of the biliary acids in the blood. It is known that these substances, themselves colorless, are capable of being transformed artificially into products which give with nitric acid the same reaction as the coloring matter of the bile, and that by their injection into the blood of animals an excess of bile pigment is found which finds its way into the urine. It is known also that these acids after being formed by the liver are again taken up into the circulation from the intestinal canal, to be finally metamorphosed into carbonic acid and water. Under normal conditions this intermediate stage of transition, the pigmentary, is not observed, owing to the rapidity of the transformation, but when from any cause the process of respiration or oxidation is interfered with, their complete metamorphosis is prevented and an accumulation of the pigment takes place sufficient to produce jaundice. It is in this way that icterus may be explained in pyæmia, poisoning, pneumonia, &c., in which there is no obstruction to the escape of the bile from the liver, and in which its secretory function is not suspended.

Dr. Morland replied to Dr. White's question, that nothing unusual had been noticed about the respiration, except the acceleration mentioned in connection with the convulsive symptoms.

substantial paper—clear type. It is tastily "got up."

Our first feeling on reading the table of contents was one of surprise that Dr. Napheys—the collator of the "*Therapeutical Bulletin*" for the *Medical and Surgical Reporter*—should have laid before the public what we took to be a sensational production for the attraction of prurient curiosity. Our impression was derived from such captions as these, viz., "The wedding night—shall husband and wife occupy the same room and bed"; "the engagements, concerning long engagements—the right time of year and month to marry—the wedding tour." We still think these headings unfortunately chosen, and that they make the book an unsuitable one to be laid upon the counters of bookstores promiscuously frequented by the young of both sexes. But, on reading a considerable portion of the work, we perceive no such objection in the text. With that, the worst fault we can find is that here and there the convictions of the author are given to the public as maxims to be at once adopted into practice, when those convictions relate to points which are mooted questions among such as are most conversant with them. This, however, is a fault which is shared by other popular treatises. Here are examples of what we mean.

"Many a married couple have been rendered miserable by the information that they had unwittingly violated one of nature's most positive laws. Though their children may be numerous and blooming, they live in constant dread of some terrible outbreak of disease. Many a young and loving couple have sadly severed an engagement, which would have been a prelude to a happy marriage, when they were informed of these disastrous results."

"For all such we have a word of consolation. We speak it authoritatively, and not without a full knowledge of the responsibility we assume.

"The fear of marrying a cousin, even a first cousin, is entirely groundless, provided there is no decided hereditary taint in the family. And when such hereditary taint does exist, the danger is not greater than in marrying into any other family where it is also found. On the contrary, a German author has urged the propriety of such unions, where the family has traits of mental or physical excellence, as a means of preserving and developing them."

"The bed of a consumptive, it is well known, is a powerful source of contagion. In Italy it is the custom to destroy, after

## Bibliographical Notices.

*The Physical Life of Woman; Advice to the Maiden, Wife, and Mother.* By GEORGE H. NAPHEYS, A.M., M.D., author of "Compendium of Modern Therapeutics," Member of Philadelphia County Medical Society, &c. &c. Philadelphia: George Maclean. 1869. Pp. 252.

This is a book of 252 pages, 18mo.—good

death, the bed-clothing of consumptive patients. Tubercular disease has, within the past few years, been transferred from men to animals by inoculation. Authentic cases are upon record of young robust girls, of healthy parentage, marrying men affected with consumption, acquiring the disease in a short time, and dying, in some instances, before their husbands."

Of the following passage, the concluding sentence we think incorrect and unwise:—

"*What is the Age of Puberty?*—This has been a matter of careful study by physicians. They have collected great numbers of observations, and have reached this conclusion:—In the middle portion of the temperate zone, the average age when the first period appears in healthy girls is fourteen years and six months. If it occurs more than six months later or earlier than this, then it is likely something is wrong, or, at least, the case is exceptional."

Having made these criticisms, we proceed to the more agreeable duty of saying that in other respects we consider the book a most valuable one for the perusal of mothers, and of those fathers who may be equal to the task of advising sons liable to commit matrimony. The style—of the text—is unexceptionable. Words are not wasted, and those used are to the point. The volume is not a mere *résumé* of others' opinions; but the author has made the topics of which he treats his own. Some of the latter statements of ours we think are illustrated by the following passage, which we quote, with only one comment.

Those to whom this Journal is addressed are at least as competent as ourselves to draw their conclusions on the subject of it. With that quotation we close this notice.

"*On the Limitation of Offspring.*—No part of our subject is more delicate than this. Very few people are willing to listen to a dispassionate discussion of the propriety or impropriety of limiting within certain bounds the number of children in a family. On the one side are many worthy physicians and pious clergymen who, without listening to any arguments, condemn every effort to avoid large families; on the other, are numberless wives and husbands who turn a deaf ear to the warnings of doctors and the thunders of divines, and, eager to escape a responsibility they have assumed, hesitate not to resort to the most dangerous and immoral means to accomplish this end.

"We ask both parties to lay aside prejudice and prepossession, and examine with us this most important social question in all its bearings.

"Let us first inquire whether there is such a thing as *over-production*—having *too many* children. Unquestionably there is. Its disastrous effects on both mother and children are known to every intelligent physician. Two-thirds of all cases of womb disease, says Dr. Tilt, are traceable to child-bearing in feeble women. Hardly a day passes that a physician in large practice does not see instances of debility and disease resulting from over much child-bearing. Even the lower animals illustrate this. Every farmer is aware of the necessity of limiting the offspring of his mares and cows. How much more severe are the injuries inflicted on the delicate organization of woman! A very great mortality, says Dr. Duncan, of Edinburgh, attends upon confinements when they become too frequent.

"The evils of a too rapid succession of pregnancies are likewise conspicuous on the children. There is no more frequent cause, says Dr. Millier—whose authority in such matters none will dispute—of rickets than this. Puny, sickly, short-lived offspring follows over-production. Worse than this, the carefully-compiled statistics of Scotland show that such children are peculiarly liable to idiocy. Adding to an already excessive number, they come to overburden a mother already overwhelmed with progeny. They cannot receive at her hands the attention they require. Weakly herself, she brings forth weakly infants. 'Thus,' concludes Dr. Duncan, 'are the accumulated evils of an excessive family manifest.'

"Apart from these considerations, there are certain social relations which have been thought by some to advise small families. When either parent suffers from a disease which is transmissible, and wishes to avoid inflicting misery on an unborn generation, it has been urged that they should avoid children. Such diseases not unfrequently manifest themselves after marriage, which is answer enough to the objection that if they did not wish children they should not marry. There are also women to whom pregnancy is a nine months' torture, and others to whom it is nearly certain to prove fatal. Such a condition cannot be discovered before marriage, and therefore cannot be provided against by a single life. Can such women be asked to immolate themselves?

"It is strange, says that distinguished writer, John Stuart Mill, that intemperance in drink, or in any other appetite, should be condemned so readily, but that incontinence in this respect should always meet

not only with indulgence but praise. 'Little improvement,' he adds, 'can be expected in morality until the producing too large families is regarded with the same feeling as drunkenness, or any other physical excess.' A well-known medical writer of London, Dr. Drysdale, in commenting on these words, adds: 'In this error, if error it be, I also humbly share.'

" 'When dangerous prejudices,' says Sismondi, the learned historian of Southern Europe, 'have not become accredited, when our true duties towards those to whom we give life are not obscured in the name of a sacred authority, no married man will have more children than he can bring up properly.'

" Such is the language of physicians and statesmen. But a stronger appeal has been made for the sake of morality itself. The detestable crime of *abortion* is appallingly rife in our day; it is abroad in our land to an extent which would have shocked the dissolute women of pagan Rome. Testimony from all quarters, especially from New England, has accumulated within the past few years to sap our faith in the morality and religion of American women. This wholesale, fashionable murder, how are we to stop it? Hundreds of vile men and women in our large cities subsist by this slaughter of the innocents, and flaunt their ill-gotten gains—the price of blood—in our public thoroughfares. Their advertisements are seen in the newspapers; their soul and body destroying means are hawked in every town. With such temptation strewn in her path, what will the woman threatened with an excessive family do? Will she not yield to evil, and sear her conscience with the repetition of her wickedness? Alas! daily experience in the heart of a great city discloses to us only too frequently the fatal ease of such a course.

" In view of the injuries of excessive child-bearing on the one hand, and of this prevalent crime on the other, a man of genius and sympathy, Dr. Raciborski, of Paris, took the position that the avoidance of offspring to a certain extent is not only legitimate, but should be recommended as a measure of public good. 'We know how bitterly we shall be attacked,' he says, 'for promulgating this doctrine; but if our ideas only render to society the services we expect of them, we shall have effaced from the list of crimes the one most atrocious without exception, that of child-murder, before or after birth, and we shall have poured a little happiness into the bosoms of despairing families, where poverty is allied to

the knowledge that offspring can be born only to prostitution or mendicity. The realization of such hopes will console us, under the attacks upon our doctrine.'

" It has been eagerly repeated by some that the wish to limit offspring arises most frequently from an inordinate desire of indulgence. We reply to such that they do not know the human heart, and that they do it discredit. More frequently the wish springs from a love of children. The parents seek to avoid having more than they can properly nourish and educate. They do not wish to leave their sons and daughters in want. 'This,' says a writer in *The Nation* (of New-York), in an article on this interesting subject—'this is not the noblest motive of action; of course, but there is something finely human about it.'

" 'Very much, indeed, is it to be wished,' says Dr. Edward Reich—after reviewing the multitudinous evils which result to individuals and society from a too rapid increase in families—'that the function of reproduction be placed under the dominion of the will.'

" Men are very ready to find an excuse for self-indulgence, and if they cannot get one anywhere else, they seek it in religion. They tell the woman it is her duty to bear all the children she can. They refer her to the sturdy, strong-limbed women of the early colonies, to the peasant women of Europe, who emigrate to our shores, and ask and expect the American wife to rival them in fecundity. They do not reflect that she has been brought up to light indoor employment, that her organization is more nervous and frail, that she absolutely has not the stamina required for many confinements.

" Moreover, they presume too much in asking her to bear them. 'If a woman has a right to decide on any question,' said a genial physician in the Massachusetts Medical Society a few years since, 'it certainly is as to how many children she shall bear.' 'Certainly,' say the editors of a prominent medical journal of our country, 'wives have a right to demand of their husbands at least the same consideration which a breeder extends to his stock.' 'Whenever it becomes unwise that the family should be increased,' says Sismondi again, '*justice and humanity* require that the husband should impose on himself the same restraint which is submitted to by the unmarried.'

" An eminent English writer on medical statistics, Dr. Henry MacCormac, says: 'The brute yields to the generative impulse

when it is experienced. He is troubled by no compunction about the matter. Now, a man ought not to act like a brute. He has reason to guide and control his appetites. Too many, however, forget, and act like brutes instead of as men. It would, in effect, prove very greatly conducive to man's interests were the generative impulses placed absolutely under the sway of right reason, chastity, forecast, and justice.

"There is no lack of authorities, medical and non-medical, on this point. Few who weigh them well will deny that there is such a thing as too large a family; that there does come a time when a mother can rightfully demand rest from her labors in the interest of herself, her children, and society. When is this time? Here again the impossibility meets us of stating a definite number of children, and saying, This many and no more. As in every other department of medicine, averages are of no avail in guiding individuals. There are women who require no limitation whatever. They can bear healthy children with rapidity, and suffer no ill results; there are others—and they are the majority—who should use temperance in this as in every other function; and there are a few who should bear no children at all. It is absurd for physicians or theologians to insist that it is either the physical or moral duty of the female to have as many children as she possibly can have. It is time that such an injurious prejudice was discarded, and the truth recognized, that while marriage looks to offspring as its natural sequence, there should be inculcated such a thing as marital continence, and that excess here as elsewhere is repugnant to morality, and is visited by the laws of physiology with certain and severe punishment on parent and child.

Continence, self-control, a willingness to deny himself—that is what is required from the husband. But a thousand voices reach us from suffering women in all parts of our land that this will not suffice; that men refuse thus to restrain themselves; that it leads to a loss of domestic happiness and to illegal amours, or that it is injurious physically and mentally—that, in short, such advice is useless, because impracticable.

"To such sufferers we reply that nature herself has provided to some extent against over-production, and that it is well to avail ourselves of her provisions. It is well known that women when nursing rarely become pregnant, and for this reason, if for no other, women should nurse their own children, and continue the period until the

child is at least a year old. Be it remembered, however, that nursing, continued too long, weakens both mother and child, and, moreover, ceases to accomplish the end for which we now recommend it.

"Another provision of nature is, that for a certain period between her monthly illnesses every woman is sterile.\* The vesicle which matures in her ovaries, and is discharged from them by menstruation, remains some days in the womb before it is passed forth and lost. How long its stay is we do not definitely know, and probably it differs in individuals. From ten to twelve days, at most, are supposed to elapse after the cessation of the flow before the final ejection of the vesicle. For some days after this the female is incapable of reproduction. But for some days before her monthly illness she is liable to conception, as for that length of time the male element can survive. This period, therefore, becomes a variable and an undetermined one, and even when known, its observation demands a large amount of self-control.

"What, then, is left to her whom an inconsiderate husband does not spare, and in whom the condition of nursing does not offer—as sometimes it does not—any immunity from pregnancy?

"Even this forlorn wife science lives in hope to cheer by resources, simple and certain, which enable a woman to let reason and sound judgment, not blind passion, control the increase of her family.

"Such resources are no patents or secrets hawked about by charlatans or advertised by quacks. Were they familiar to intelligent physicians, yet with a wise discrimination, and a conscientious regard for morality, they could not reveal them except when they were convinced that they would not be abused. Therefore, we, for similar reasons, refrain from discussing the subject.

"Let women be warned in the most emphatic manner against the employment of the secret methods which quacks in the newspapers are constantly offering. Such means are the almost certain cause of painful uterine diseases and of shortened life. They are productive of more misery by far than over-production itself. 'The workings of nature in this as in all other physiological processes,' says Dr. Gaillard Thomas, 'are too perfect, too accurately and delicately adjusted, not to be interfered with materially by clumsy and inappropriate measures adopted to frustrate her laws.'

"None of these clumsy expedients is

\* This statement is believed by some not to be of universal application.—Ed.



more frequent than the use of injections. None is more hurtful. It is almost certain to bring on inflammation and ulceration. 'We are prepared to assert,' says the editor of an ably-conducted medical journal in the west, 'that fully *three-fourths* of the cases we have met of the various forms and effects of inflammation of the uterus and appendages in married women are directly traceable to this method of preventing pregnancy.'

"Equally injurious to the husband is the habit of uncompleted intercourse. Nervous prostration, paralysis, premature debility and decay, are its inevitable consequences. No wife who loves her husband will ask or permit him to run this danger.

"On the contrary, when those due safeguards which medical skill may propose are employed to attain the same end, the danger seems less." \* \* \*

*Diseases and Injuries of the Eye; their Medical and Surgical Treatment.* By GEORGE LAWSON, F.R.C.S., Surgeon to the Royal London Ophthalmic Hospital, &c. Philadelphia. 1869.

The beautiful little handbook of Mr. Lawson is intended to instruct members of the profession in the lesser diseases of the eye which occur in their general every-day practice. It does not profess to take the place of any of the more compendious works on the eye; but discusses briefly but very clearly and excellently modern ophthalmological science in a way which is very attractive. In fact it fills the place in the English surgeon's library which Dr. Williams's Practical Guide so well supplied with us a few years ago. It bears evidence of careful study as well as large experience, and may therefore be looked on as a safe guide to the oculist and general practitioner.

F. H. B.

## Medical and Surgical Journal.

BOSTON: THURSDAY, NOVEMBER 25, 1869.

### ANÆSTHETIC INHALATION.

WHEN, a few weeks since, we wrote a paragraph in these columns to the effect that the general drift of discussion and remark would often well nigh make it appear that Edinburgh and not Boston was the birthplace of anæsthesia, we little

thought that the Seal of the Town Council of Edinburgh was to be so soon placed upon our statement; or that a Scottish Baronet was perhaps at that moment meditating the speech which was to give point to our words and make them literally applicable. The English medical journals, however, which have lately been received here, are teeming with descriptions of the ceremonies at the Presentation of the Freedom of the City of Edinburgh to Sir James Y. Simpson. And the address of the Lord Provost on that occasion, together with the speech of the Knighted Physician in reply, fully confirm all that we had said on this subject. But, when the now venerable author of the famous essays on Nature in Disease comes forth, as in the following communication, from his retirement of literary leisure—a repose well earned by a life of activity as full of honors as of years—to vindicate the claims of the land which gave to the world one of the greatest medical discoveries ever vouchsafed to mankind, it becomes us to vacate the chief place in this JOURNAL and leave it to be graced for the time by his distinguished occupancy.

IN a recent copy which has reached us of the *Edinburgh Daily Review*, is contained an account of a meeting of the Town Council of Edinburgh, at which the freedom of the city was presented in a crimson velvet box, emblazoned with the city arms, to Sir James Y. Simpson, Bart., M.D., &c. &c. The account is accompanied with the speech of the Lord Provost and the reply of the eminent physician to whom this signal honor was tendered. In the address the Lord Provost says, "I will not dwell on what you have accomplished in medical science. I will only allude to your discovery—the greatest of all discoveries in modern times—the application of chloroform to the assuagement of human suffering."

No one will probably object to the proceeding of the municipal authorities of Edinburgh in conferring high honor on one of its citizens who has assisted in introducing into that city the results of an important discovery, and whose professional celebrity, like that of many predecessors, has

attracted to his place of residence an influx of strangers, thereby greatly benefiting "the hotel keepers, merchants and others of the city," not including the various manufactories of chloroform in Great Britain, one of which, "located in Edinburgh, makes as many as 8000 doses a day." But many persons will think it a mistake in the adopter of a foreign discovery to ignore the source from which he derived it. Sir James Simpson, in a long and eloquent reply to the Lord Provost, while he complacently accepts the crown of borrowed plumes thus tendered to him, makes not the slightest allusion to the country from which they were plucked, in which country anæsthetic inhalation, with more agents than one, was established, vindicated and successfully practised long before it was heard of in Edinburgh or any part of Europe.

It is not wonderful that in the designs of Providence medicinal agents should exist, capable of averting pain by the suspension of sensibility. But the wonder is that after mankind had borne pain ever since the creation of their race, any person should be found of sufficient courage and strength of conviction to put through the untried and formidable experiments necessary to decide whether life could continue, under the inhalation of a scarce respirable vapor, carried to such an extent as to destroy sensibility and produce apparent death. That man was not Sir James Y. Simpson.

The history of anæsthetic inhalation is well known. It began in this country, and was first used in the extraction of teeth, and afterwards in capital operations in the Mass. General Hospital, and in obstetrical practice. The attention of the civilized world was immediately drawn to the great American discovery. Every known variety of ethers and of compounds containing the elements of ethers, together with volatile substances, gases and vapors, were at once submitted to the test of experiment. It is possible that better agents than those now in use will hereafter be discovered, but for the last twenty years the anæsthetic practice seems to have settled mainly on two agents, viz., sulphuric ether, with which the discovery was made, and which has thus far shown itself to be the most safe

and manageable, and chloroform, which is more portable and agreeable in its odor, but which experience has shown to be more frequently attended with danger in its use.

J. B.

#### NOTES FROM FRENCH JOURNALS.

*The Microscope and Clinical Diagnosis.*—Under this caption a correspondence is carried on between MM. Diday and Verneuil *pro* and *contra* M. Nélaton and his *bull* in the *Paris Figaro*; and *contra* and *pro* the microscope. Such a correspondence would in England be "spicy." In Paris it is *spirituelle*—"racy." It is the play of the small sword, as contrasted with shoulder-biting.

M. Diday begins "My dear Verneuil," thus giving the *accolade*. In the *salon*, says Diday, a certain request is much in vogue. And yet it is contrary to *all* rules, for it is addressed by the ladies to the opposite sex; and the more wit one has, the less he can elude the demand. It is made when, about the hour for tea to be brought in, a pretty mouth adorned with its sweetest smile utters in low tones, "Doctor! a word in my album!" This supplication, my friend, however often you may have experienced it, I have known you in times past too gallant to resist for a moment. But, as I understand you to-day, you are too serious a man to be occupied for more than a week with such madrigals traced hastily upon the sand. Why then—when he has simply yielded to the prayers of her whom we all recognize as sovereign—why do you hector, poor Nélaton?

To this, *sic incipit ore* Verneuil. "My dear Diday." Formerly I was no doubt more gallant than serious; and *certes* I am to-day more serious than gallant. It is no less true that at all epochs of my life I have had my eyes wide open, and have known what I was about before I left my signature as evidence against me. I may have, indeed, scribbled bad verses in an album; or upon occasion strayed in a humorous vein into the *Gazette Hebdomadaire*. But, I have hitherto thought, and still think, that a physician ought never to write upon the art of medicine in a political journal—at least over his own name. This may be over-scrupulous in me. But it is

my way. I am not, however, alone in my opinion, as you may see by referring to the London *Medical Times and Gazette* of October 2d.

To Verneuil's home question—what would you do without the microscope in the diagnosis of leucocythæmia—a disease which, in fact, could never have had a place in the nosology without that instrument—Diday responds, "leucocythæmia? in point of white globules listen to a little anecdote." Diday then dodges off upon a side issue. Here is his story, however, which we give because it is good in itself:—Drawing up a few years ago a history of urethrorrhœa, I wished to know if the urethral secretions of certain of my patients contained pus or not; and if it did, in what proportion. To tell the truth, I was judging quite well with my eye—it was quite naked at that time—and could have dispensed with the lens without inconvenience in that investigation. But yet I was willing to submit to the fashion of the day, and give a seal of precision to my researches. I subjected the aforesaid secretions to the examination of one of our most skilful microscopists. Alas! "These are pus globules!" he announced each time that he examined. Whatever was the specimen presented, were it even simple mucus (as I confess to have sent him once, out of pure malice), "these are pus globules" was the invariable statement. And as, like a true novice, I was indignant at this, he finally avowed to me that I could at any time obtain such globules by simply scraping my tongue, though clean and red with the hue of health.

Another story follows relative to the microscope *versus* spermatorrhœa. A young man, a neuropathic patient—and as such costive and continent—came to tell me, confused and in despair, that he had long suffered from seminal emissions. I question; I listen; and being fully apprised of everything, I find that it is not an affair of nocturnal emissions, but only of that viscous excretion, consisting of a few drops only, which in such conditions of the system occasionally accompany defæcation. I reason with the "poor devil," and make him understand that this excretion is not

semen, as represented either by its quantity, its odor, its aspect, or the sensation caused by its expulsion. Behold my man perfectly satisfied! But his contentment is not of long duration. He goes now and then to a *confrère* much more learned than myself, who, piquing himself on his precision, subjects the discharged fluid to microscopical examination. What does he find? The tail of a single spermatozoon! And now the unfortunate, whom the *clinique*—the truth—had re-assured, the microscope in the name of its infallibility had plunged into anguish again, the worse that, in proportion to its chimerical nature, it was incurable.

Of course Verneuil replies that it was not the lens that was at fault here, but the microscopist. Nevertheless he spoils only the *logic* of the story.

In another direction, however, Verneuil gets the advantage. He offsets against the few citations of failure on the part of the microscope a long list of its triumphs in physiological and pathological investigation. Having got a sharp thrust from his adversary on the subject of the claims formerly made on behalf of the microscope in the diagnosis of *cancer*, he acknowledges that the instrument did once boast itself rather too much in this respect, but declares that after all concessions have been made, he yet thinks the famous cell, with large spherical nuclei and brilliant nucleoli, to be of great importance in carcinomatous prognosis; and prays that never may one of those bodies be deposited in the Diday parenchyma.

The following items we derive from the *Gazette Hebdomadaire*:—

*Incomplete Descent of the Testicle*.—Doctor Valette reports in the *Lyon Médical* a case of pseudo-strangulation due to inguinal ectopia. Instances of this kind are rare. In the present one, the surgeon decided to practise castration by a process of his own, in which the pedicle is seized by a sort of clamp mounted with caustic chloride of zinc. Recovery was rapid. The case is interesting as bearing upon the indication of castration in analogous cases. The testicle, on microscopical examination,

presented alterations which rendered its usefulness doubtful.

*A Case of Lipoma of the Cerebral Pia Mater*, is taken from the *Archives de Physiologie*. The tumor was situated in the pia mater covering the superior surface of the corpus callosum, to which it was closely bound by a lamelliform expansion. Chemical and microscopical examination showed lipoma. The tumor, which was in a child of two years and eight months, had given rise to no appreciable symptom. We have here another instance of the tolerance of certain tumors by the nervous substance.

This case is compared with one of lipoma observed by G. Sangalli, who found the tumor in a woman sixty-four years old. There was no indication of lesion of innervation. At the autopsy, however, there was seen on the right side of the pituitary gland, and in front of the right pisiform body, a lipoma of the size of a strawberry. The lipoma had an appendix at its posterior portion, and was covered in by the pia mater. This tumor adhered to the pituitary gland and to the pisiform body, which latter was not compressed by it.

*Sewing Machines*.—Doctor Espagne has written a pamphlet on sewing machines, having collected his data at large manufacturing establishments. His object is to show the importance of artificial motor action to take the place of the human pedal movement, and that not only from a business point of view, but also in relation to hygienic considerations. Reference is made to the serious inconveniences resulting from too prolonged use of the sewing machine as hitherto employed.

*Measles*.—The *Gazette* reports a paper by M. Girard, of Marseilles, on *The Transmission of Rubcola; its Period of Incubation; and the Dotting of the Pharynx characteristic of the First Stage of the Disease*.

M. Girard claims to base his data on a series of 108 cases minutely observed "pen in hand." An analysis of the 108 cases shows no exception to the statement that "measles is transmitted only by contagion."

[If this be universally true, then in order to account for the first case in any endemic of the disease, it must be assumed that the

disorder is constantly prevailing in some part or parts of the world, and that its various invasions are migrations.—Ed.]

The contagion is effected, says M. Girard, during the prodromic period, before the appearance of the eruption.

The duration of the period of incubation may be definitely fixed as between thirteen and sixteen days.

The appearance of red dots on the velum palati was observed always—without a single exception—four, five, or at most, six days before the commencement of the cutaneous eruption.

In a discussion which followed the reading of the paper, M. Isambert and M. Buequoy insisted that contagion had occurred in some instances during the decline of the disease.

M. Champouillon remarked that Broussais in 1835 had been struck with the red-colored dotting of the velum palati in measles, but had not specified the period of its occurrence. M. Bergeron added that this appearance had been noticed by all physicians; but that for his part he had never seen it during the stage of invasion.

*Instrument for intra-uterine Cauterization*—for those who care to cauterize the womb intra-murally. The instrument consists of a double tube for ingress and egress of fluid; and of three caoutchouc reservoirs connecting with the canal of ingress. The largest reservoir injects distilled water to wash out the womb; one of the smaller bags of rubber throws in a solution of nitrate silver to cauterize; the third pouch emits a solution of common salt, to neutralize any excess of the last solution; and finally, the large reservoir pours in distilled water again to expel the previous intruders. All the fluids in turn escape by the canal of egress.

*Hospital Tents*.—The *Gazette* of October 15 has large wood-cuts representing hospital tents, and a description of the hospital-tent system, as now employed on the continent. Such arrangements might be of great general utility for sudden emergencies during invasions of epidemics—as of smallpox, or cholera—but in such a climate as that of New England will hardly supersede structures of brick or stone. In

warmer latitudes, however, they may perhaps take a wide range.

THROUGH the kindness of the distinguished counsel—George O. Shattuck, Esq.—we have been furnished with a verbatim report of the opening statement of the Secretary of the State Board of Health, Geo. Derby, M.D., relative to the proposed filling of Charles River basin.

*(Question by Mr. Ingalls.) Will you give your opinion upon the proposition of filling up the Charles River, leaving a channel of three, four or five hundred feet; will you state what its effect would be in a sanitary point of view upon the locality?*

I should say that the filling up of the present limits of the Charles River basin to any considerable extent must inevitably be detrimental not only to the people of Boston, but to the people on the opposite shore, to the whole territory surrounding this locality. If you will allow me to state on what general considerations this opinion is based, there is a relation existing between the mortality of diseases and the density of the population, other influences being equal.

In the territory occupied by a hundred persons to the acre you will have more deaths, you will have in proportion more diseases, than in the territory occupied by fifty, and in a territory occupied by fifty you will have more than in a territory occupied by ten.

This general proposition has been established beyond all question in Europe, and in this city. This is due to the purity or impurity of the wind, and the air enjoyed by the inhabitants of the territory chiefly—I should say almost exclusively, in my own individual opinion. Setting aside the question of drinking-water, I should think it a question of air almost entirely, and I should say in almost all circumstances it was a question of the purity of air.

This impurity arises from two or three sources—one, the respiration of men and animals and the exhalations from the body and from the decomposition of organic matter thrown into the air; and also from the fermentation of the excrement of animals and of men, and from the decomposition of animal and vegetable substances, chiefly those used as articles of food.

As the air is rendered more pure, life is certainly saved; as air is rendered less pure, life is certainly sacrificed.

The particular forms, the particular dis-

eases, under which death and sickness visit a population under these circumstances of impure air, decomposition from animal or vegetable substances, are, I should think, felt at the extremes of life, and especially in infancy.

Young children are the sensitive gauge of the sanitary condition of a territory or district. There the mortality is chiefly felt, and chiefly in those cases through diseases of the bowels. There prevail such diseases as cholera infantum, diarrhoea, bowel complaints—what people understand as summer complaints—both of children and of old people. But this influence is by no means confined to the extremes of life. It is felt by persons of all ages in a greater or less degree.

The power to resist the influences of disease which are around us everywhere at all times, is certainly diminished at all ages, and with persons of all degrees of strength, by impure air—by the habitual inhalation of impure air.

The application of these general principles to the case in hand is this:—The population require open spaces for the mixture and diffusion of pure air with impure air, for it is by this process that impure air becomes pure through the diffusion and mingling of the two. Therefore it is found necessary, it is found beneficial to the health of all crowded communities to have open spaces, whether of land or water. The peculiarity of the influence of this open space upon the health of Boston lies in the fact that it is of great extent; that it is on the western side of the city; that the winds, the prevailing winds of summer—the almost constant wind of extreme hot weather—comes from this basin. It strikes the city purified, freshened, cooled upon its whole western side, and I think there can be no doubt that its influence is felt over the whole territory from Dover Street to Copp's Hill. Its influence is diminished as it passes over the city. It may be less in certain conditions of the wind, but I should think with a strong wind that its influence for good cannot be entirely lost until it strikes the harbor on the other side of the city.

I have lived in Charles Street for three years, and I know the temperature; I know, in the first place, that the wind there is extremely pleasant in summer, almost as good as we find in the country; I know that the temperature is from three to five degrees lower in the summer months at my house in Charles Street than it is in Washington Street; I should say an ave-

rage of four degrees during the months of July, August and September.

For these reasons I should greatly regret the limitation or material abridgment of the water park, which I consider of the highest sanitary value.

WE specially commend the following to the notice of the Profession :—

BOSTON, Nov. 12th, 1869.

*Mr. Editor.*—I enclose a copy of a circular recently issued by the State Board of Health, and distributed extensively. The intention is to make known to the Selectmen of every town (who are ex-officio the Board of Health) what their powers and duties are under existing laws. The weekly mortality report is intended to include the twenty largest cities and towns. You observe that I got seventeen last week—nineteen were received, but two came too late. I confidently expect very soon to get them with perfect regularity, and thus show the drift of preventable disease from week to week. I enclose one of the blank returns furnished to the town clerks, which will show you how this is done. By not aiming at too much, I hope to get these most essential indications in a form which will be useful to the profession.

The State Board is now actively engaged in getting information upon a few important subjects, and the results will be published in their report at the end of the year.

Very truly yours,

GEORGE DERBY.

We reprint the following circular, mentioned in the above note.

*Commonwealth of Massachusetts :*

{ STATE BOARD OF HEALTH,  
BOSTON, Oct., 1869.

*To the Boards of Health of the several Cities and Towns of Massachusetts :—*

The undersigned have recently been appointed by the Governor and Council, to constitute the "State Board of Health," under an act passed by the last Legislature.

In entering upon our duties, which are rather advisory than executive, we desire to establish such communication with the local Boards having this important subject in charge, that all may work together, for the common advantage of the people, for the prevention of disease, and for the prolongation of life.

We believe that all citizens have an inherent right to the enjoyment of pure and uncontaminated air, and water, and soil; that this right should be regarded as be-

longing to the whole community; and that no one should be allowed to trespass upon it by his carelessness, or his avarice, or even by his ignorance. This right is in a great measure recognized by the State, as appears by the General Statutes.

If these were strictly and impartially enforced, we should have a condition of public cleanliness, and of public health, which would make Massachusetts a model for all other communities. That this has not been done depends upon many causes, some of general, and others of purely local operation.

It has been doubted, whether the public mind is sufficiently aware of the dangerous elements around us; whether the connection between filth and disease is as yet proved to the public satisfaction; whether the people are convinced that undrained land is unwholesome to live upon.

All these doubts of the public intelligence have impeded the operation of our laws.

It is thought also that local and private interests have often been so strong as to paralyze the action of the Health authorities.

But we hope and believe that a better time is coming; and we confidently look to you to put in force the powers which the laws have placed in your hands.

Among these laws we would particularly call your attention to—

General Statutes, Chapter 26, in which are comprised stringent provisions relative to the abatement of nuisances, to vaccination, to contagion, and to offensive trades.

Also, to Chapter 49, Section 151, relative to the sale of milk produced from cows fed upon the refuse of breweries or distilleries, and to the sale of milk rendered unwholesome by any cause.

Also, to Chapter 166, in which the law is given relative to the sale of unwholesome provisions of all kinds, whether for meat or drink; the corruption of springs, wells, reservoirs, or aqueducts; the sale of dangerous drugs, and the adulteration of drugs of every sort.

It will also be seen, on reference to Chapter 211 of the Acts of the year 1866, that it is in the power of any person aggrieved by the neglect of the Board of Health of any city or town to abate a nuisance, to appeal to the County Commissioners, who can in that case exercise all the powers of the Board of Health.

Chapter 253 of the Acts of 1866 authorizes Boards of Health to seize and destroy the meat of any calf killed when less than four weeks old.

Chapter 271 of the Acts of 1866 authorizes

Boards of Health to appoint agents, to act for them, under certain restrictions.

The Legislature of 1868 passed two acts of great importance to the public health, to which we would respectfully and earnestly ask your attention. The first, Chapter 281, 1868, applies only to the city of Boston, and relates to tenement and lodging houses, placing them under very strict regulations, for the public good.

The second, Chapter 160, is of general application. It provides that in any city or town, lands which are wet, rotten, or spongy, or covered with stagnant water, so as to be offensive, or injurious to health, shall be deemed a nuisance, to be abated by the Board of Health of such city or town. In case they refuse to act, appeal may be made, by persons aggrieved, to the Superior Court or any Justice thereof, who may appoint three Commissioners with power equal to those possessed by Boards of Health.

We confidently look to you for the enforcement of these laws.

We believe that public opinion will fully support you in so doing.

We will give you all the help in our power.

There is a great work before us, which, if carried out in the letter and spirit of the laws referred to, we cannot doubt will justify the wisdom which framed them.

In making this our first communication to the Boards of Health of the various Cities and Towns of the Commonwealth, we sincerely hope that it may serve as the opening of friendly and helpful relations between us, and that it will lead to reforms, the effects of which will be evident in the improved condition of public health.

Communications addressed to our Secretary, Dr. GEORGE DERBY, State House, Boston, will be at once acknowledged, and will be laid before the State Board of Health at their next meeting.

Very respectfully,

Your obedient Servants,

HENRY I. BOWDITCH,	} State Board of Health.
GEORGE DERBY,	
ROBERT T. DAVIS,	
RICHARD FROTHINGHAM,	
P. EMORY ALDRICH,	
WARREN SAWYER,	
WILLIAM C. CHAPIN,	

Appended is a copy of the blank issued to the town clerk of each of the larger places in the State:—

Report of deaths in ——— for the week  
ending Saturday noon, 18 .

(To be mailed to the Secretary of the State Board of Health on the succeeding Monday.)

DISEASES.	NO. DEATHS.
Smallpox and varioloid . . . . .	
Measles . . . . .	
Scarlet fever and scarlatina . . . . .	
Diphtheria . . . . .	
Croup . . . . .	
Influenza . . . . .	
Whooping cough . . . . .	
Erysipelas . . . . .	
Cholera morbus . . . . .	
Cholera infantum . . . . .	
Asiatic cholera . . . . .	
Typhoid and typhus fever . . . . .	
Dysentery and diarrhoea . . . . .	
Consumption . . . . .	
Pneumonia and inflammation of lungs	
All other diseases and causes of death	
Total number of deaths . . . . .	

REMARKS.

DEATH FROM CHLOROFORM. By JOHN MURRAY, M.D., F.R.C.S.E., &c.—On the 11th of this month a young man was admitted into the Ovens district Hospital for a disease in one of his fingers, which it was decided to amputate. As the patient was very nervous, chloroform was employed, at his own desire, the administration of which resulted in his death.

An inquest was held, and a lengthy examination of the medical gentlemen attending the case was made; the verdict stated that death resulted from stoppage of the heart's action. Before the chloroform was used, the usual examination of the patient's heart and chest by the stethoscope was made, and nothing abnormal discovered.

On the 20th of March a patient in the Lying-in-Hospital died during the administration of chloroform, while undergoing an operation for the relief of prolapsus uteri. At the *post-mortem* nothing unusual was discovered, except a slightly flabby state of the heart. The verdict attributed no blame to any person.

A third case occurred in the Melbourne Hospital about a year and a half ago, when the *post-mortem* examination disclosed a diseased state of the heart, but the description was very imperfect.

Now, in the first of these cases, it appears that the usual precautions were taken, and nothing unfavorable discovered, and yet one of the medical witnesses stated that the right auricle was in a state of fatty degeneration, which might have been discovered

by an accurate stethoscopic examination, and yet was not.

What then was the cause of death? Was the stethoscopic examination of the heart, lungs, &c., so minute and accurate as to preclude the conviction of serious disease in these organs? or did death occur from the bad quality of the chloroform? That such might be the case is evident from the noxious character of the impurity occasionally found in chloroform.

There is an impurity not unfrequently found in this drug and altogether unsuspected. \* \* \* \*

Whether any of the three deaths occurred from the use of impure chloroform or not, would be ascertained by the acid test, which ought always to be tried when the article is supplied to a public institution. Every druggist should also test his chloroform, so as to guard against accidents in private practice.

In connection with this subject, I may remark that no detailed report of the medical evidence at the inquest was furnished in any of the Melbourne journals, but in the local paper of the Ovens, which is not seen by the profession generally, a full report is given.

Whether medical coroners are to be continued or no, a full official report of the medical evidence ought to be furnished in every case, and published in the *Government Gazette*, for the benefit of the public and the profession.—*Australian Medical Gazette*.

A LETTER from Dr. Barnes, on his water-bags, concludes as follows:—

A word as to the action of the water-bags. It is simply adjuvant, and is not always required. I have divided the agents for inducing labor into two classes—the provocative and the accelerative. The catheter is provocative, the water-bags accelerative. I do not use them to provoke labor, but to expand the cervix where uterine action cannot be evoked. The principles of action are summarized in the following propositions drawn from the histories of cases in the memoir referred to:

"1. In induced premature labor the accomplishment of delivery is extremely uncertain as to time.

"2. This uncertainty involves danger to the mother and child.

"3. The immature condition of the uterus often entails defective contractile power and increased resistance to the passage of the child.

"4. Hence it is desirable to aid the dila-

tion of the cervix, and to supplement the contractile power, to watch and control the course of labor throughout, and to bring it to a termination within a definite period.

"5. This aid can be offered safely and beneficially by the cervical water dilators, and by the forceps, and turning.

"6. By the proper use of these accelerative means, children may be saved which would otherwise in all probability perish.

"7. In the management of cases of placenta prævia these accelerative means are of eminent value.

"8. Labors may always be completed with safety within twenty-four hours."

These propositions embody the principles of action in the induction of premature labor. Of course judgment and practised skill are requisite to carry them out so as to insure the greatest amount of success. But, given these conditions, I have no hesitation in affirming that the operation for the induction of labor, which, heretofore, had been almost a matter of accident so far as the result to the child is concerned, may now be looked upon as a scientific proceeding, combining safety and certainty in a high degree.—*London Medical Times and Gazette*.

PARCHMENT.—The ancient process employed for producing parchment was nearly analogous to that now actually in use. Goat and sheep-skins are preferred for making parchment; while calf, lamb, and still-born kid-skins are reserved for vellum. The art of the parchment maker consists in making these skins very thin and almost transparent, they yet being perfectly firm and strong for use. After the hides have been depilated, unflashed, and partly ungreaed, they are immersed into a solution of alum and sea salt; they are then very quickly dried and stretched out on wooden frames, by means of screws, and drawn so tightly that no wrinkle or fold remains. When the skin is very dry the workman, with a sharp iron, takes off all the flesh which may adhere to its internal surface, then, turning his grater towards the back, he removes all the dirt, and the water which has accumulated on the external side, or epidermis, taking great care not to injure the same. Upon which he proceeds to pounce it, that is to say, he covers the skin, on the inner side only, with a layer of very fine powdered dead lime, and then passes a large pumice-stone over it. The lime absorbs with rapidity all the water yet retained in the skin. After these operations, the skin is again dried, and then given to the polisher, who treats



it again in precisely the same manner as before described. He makes it thinner and more equal, gives it a beautiful polish, by means of a very soft pumice-stone. The parchment is then folded, shaved off, put in the press, and sent forth to the trade. Vellum is only a superior quality of parchment; it is made of the finest skins, generally from the lamb or the calf, as its name indicates (*veal* in the middle-ages meant calf). A solution of gum water and fine white-lead is spread on the vellum, in order to give it a whiter and smoother aspect. The intestines of animals have sometimes been employed. Zonore states, in his "Annals," that the Library at Constantinople possessed Homer's works written in golden letters on the intestine of a serpent, which was 120 feet in length. Parchment in former times was dyed yellow or purple; the latter being generally reserved for sacred books, or for the use of royal families.—*Morgan's Brit. Trade Journal*.

**POISONING BY PUERPERAL BLOOD INJECTED INTO THE VEINS OF ANIMALS.** By M. COZEL. —Three rabbits inoculated with puerperal blood died with convulsions and spasms of the respiratory muscles, as if from strychnine. Two of them uttered plaintive cries before death, like animals inoculated with putrid blood. He states that he never saw the same effect produced by inoculation with the blood of patients suffering from scarlet fever. The puerperal blood taken from different parts of the body showed, under the microscope, an augmentation of white corpuscles; the red globules, generally altered in shape, exhibited an abundance of fibrinous tracks. The lungs were dark-colored, and in places ecchymosed; they presented more resemblance to the state observed in asphyxia than in inflammation; no signs of the latter could be discovered by the microscope. The spleen was dark-colored, and gorged with blood, which presented all the alterations mentioned above. These were the only organs altered.—*Gazette Médicale de Strasbourg*.

**RELIEF FROM THE USE OF STRONG COFFEE DURING THE PASSAGE OF A LITHIC-ACID CALCULUS.**—Patient, æt. 36, was attacked 10th Sept. last, with intense pain over the region of the left kidney, and along the course of the corresponding ureter, the result of the passage of a calculus. He had frequently, previous to the attack, passed several small lithic-acid calculi, with his urine. The attack was violent, and his suffer-

ing almost intolerable. Chloroform was used frequently to anæsthesia, and also internally in liberal doses, with tinct. opii and morphia sulphas, with sinapisms and hot hip bath, with only temporary relief.

All seeming to fail, the following treatment was adopted with prompt and permanent relief.

Half a pound of strong ground coffee was added to twelve teacupfuls of hot water, which was boiled down to nine. One teacupful was ordered hot every twenty or thirty minutes, until eight were administered, which gradually brought on perfect relaxation and complete subsidence of all pain. He has felt not the slightest evidence of a return of the attack up to this time, Oct. 10, 1869.—*Medical Bulletin*.

**CHOLERA IN BENGAL.**—After a temporary cessation, cholera has lately reappeared with increased vigor among our troops in Bengal. Latest accounts mention that there have been rather more than 500 admissions and 300 deaths of soldiers from cholera and choleraic diarrhoea. Among the women and children the disease has also been very prevalent. The regiments which have suffered most are the 58th at Allahabad, the 62d at Lucknow, the 1st Battalion 7th Fusiliers at Saugor, the Artillery and the 103d Regiment at Morar, and the 41st Regiment at the hill-station of Subathoo. At most of the other up-country military stations occasional cases have occurred, showing a very general epidemic influence. Thus far no cases appear to have occurred among the British troops at Calcutta, and only one at Dum Dum early in the season. We regret to see that Assistant-Surgeon G. C. Dunn, of the 5th Lancers at Lucknow, has been carried off by cholera. This is the second Medical officer who has fallen a victim during the present epidemic, the other having been Assistant-Surgeon A. E. Hale, of the 103d Regiment. They were both young men, having entered the service in October, 1866, and September, 1864, respectively.—*Medical Times and Gazette*.

MR REID, of the Geelong Hospital, records (*Lancet*) another total extirpation of the tongue, an operation which he has performed several times. In this case, as we believe in all hitherto reported, the disease (cancer) recurred in the glands of the neck, and death ensued within a year.—*Medical Gazette*.

## Medical Miscellany.

WE accidentally omitted to mention in our last issue that the notice it contained of Dr. Ordronaux's book was kindly furnished us by a gentleman of the Suffolk Bar—well known in legal circles as a contributor to the *American Law Review*.

THE statue of Dupuytren was recently inaugurated at Pierre-Buffière, with a discourse by M. Dépéret-Muret, Professor at the School of Medicine at Limoges.

WE have seen it announced that the Bristol South District Medical Society have voted to request the Representative to Congress from their district to vote for the rehabilitation of the Medical Corps of the Navy.

THE MOOTED NAVAL QUESTION.—The naval board, to investigate the quarrel between line and staff officers, will soon meet, and the intention is to have it report so that the document can be laid before Congress next month, if called for. The board consists of ten officers, five from the line and five from the staff. Six of the number are believed to side with the line, and four with the staff. There is a good deal of interest in naval circles about the contemplated inquiry.—*Boston Daily Advertiser*.

THE NAVY.—The names of the officers detailed by the Secretary of the Navy to examine into and report upon the differences between the line and staff officers, have not, the Secretary says, been correctly published. The following list, which is correct, has been furnished by Secretary Robeson:—

President, Commander M. Smith, Chief of Bureau of Equipment and Recruiting. Members—Commander Jas. Allen, Chief of Bureau of Navigation; Commander A. L. Case, Chief of Bureau of Ordnance; Captain Daniel Ammen, Chief of Bureau of Yards and Docks; Naval Constructor John Lenthall, Chief of Bureau of Construction; Surgeon William Wood, Chief of Bureau of Medicine and Surgery; Paymaster E. T. Dunn, Chief of Bureau of Provisions and Clothing; Chief Engineer J. W. King, Chief of Bureau of Steam Engineering; Captain William Reynolds, United States Navy; Surgeon N. Pinkney, United States Navy.

It will be observed that the board is composed of five line officers and five staff officers.—*Ibid*.

THE LONDON MEDICAL SCHOOLS.—The official report shows that at the eleven schools of medicine in London, 1,231 gentlemen are pursuing their studies. This is three more than in 1860, the year of the "rush" to escape the new preliminary examination. The freshmen are 96 at Guy's, 80 at St. Bartholomew's (notwithstanding the dissatisfaction that exists), 71 at University College, 33 at King's College, 29 at the London Hospital, 28 at St. George's, 28 at St. Thomas's, 16 at St. Mary's, 15 at Middlesex, 7 at Westminster. Charing Cross boasts of 18; but when we consider that there are arrangements at that school for free

scholarships, and that the teachers have some privileges of introducing pupils who cannot pay the usual fee, it can scarcely be called in flourishing condition. There are, we believe, at some hospitals a few who have not yet registered, and one or two others who only enter for partial instruction.—*Dublin Med. Press and Circular*.

## MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 9, A.M., City Hospital, Ophthalmic Clinic. TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9, A.M., Boston Dispensary. 11, A.M., Massachusetts Eye and Ear Infirmary. THURSDAY, 9, A.M., Massachusetts General Hospital, Medical Clinic. 11, A.M., Massachusetts Eye and Ear Infirmary. FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9, A.M., Boston Dispensary. SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

ERRATUM.—In our issue of Nov. 11th, page 264, instead of "raise its specific gravity above," read *make its specific gravity less*.

TO CORRESPONDENTS.—Communications accepted:—Strabismus, &c.—Ulceration and Stricture of the Intestine, &c.—Norfolk District Society Records—Experiments with Chloral—A Case of Remarkable Endurance—A Suit for Malpractice—Resources of Southern Fields and Forests, &c., a Review.

## Deaths in sixteen Cities and Towns of Massachusetts for the week ending Nov. 20, 1869.

Cities and towns.	Number of deaths in each place.	Prevalent Diseases.		
		Consumption.	Typhoid Fever.	Croup.
Boston . . . .	114	20	5	3
Charlestown . .	6	2	0	0
Worcester . . .	7	1	0	0
Lowell . . . .	11	2	1	0
Chelsea . . . .	5	1	0	0
Salem . . . .	10	2	0	0
Lawrence . . .	9	2	1	0
New Bedford . .	11	0	1	1
Springfield . .	11	4	1	0
Lynn . . . .	5	2	0	0
Pittsfield . . .	6	0	2	0
Gloucester . . .	6	1	1	4
Taunton . . . .	2	1	0	1
Newburyport . .	5	1	0	2
Fall River . . .	6	0	0	0
Haverhill . . .	5	1	1	0
	218	40	13	11

Boston reports thirteen deaths from pneumonia and eight from scarlet fever; New Bedford two from measles, and Springfield one from smallpox.

GEORGE DERRY, M.D.,  
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending November 20, 114. Males, 54—Females, 60.—Abscess, 1—accident, 2—apoplexy, 1—asthma, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 6—inflammation of the brain, 1—bronchitis, 5—cancer, 2—consumption, 20—convulsions, 4—croup, 3—cyanosis, 1—debility, 4—diarrhea, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 1—bilious fever, 1—scarlet fever, 8—typhoid fever, 5—disease of the heart, 4—homicide, 1—insanity, 1—jaundice, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 13—marasmus, 3—old age, 4—paralysis, 2—pleurisy, 1—premature birth, 2—rheumatism, 2—unknown, 3.—Under 5 years of age, 41—between 5 and 20 years, 8—between 20 and 40 years, 25—between 40 and 60 years, 18—above 60 years, 22. Born in the United States, 74—Ireland, 32—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, DECEMBER 2, 1869.

[VOL. IV.—No. 22.]

## Original Communications.

### EXPERIMENTS WITH CHLORAL HYDRATE.

Made by DR. HASKET DERRY, at the Eye and Ear Infirmary, Nov. 8th, 9th, and 11th, 1869. Reported by MR. A. LAWRENCE MASON.

[Read before the Boston Society for Medical Improvement by Dr. HASKET DERRY.]

As is well known, chloral is made by passing chlorine gas through anhydrous alcohol, with subsequent distillation. The hydrate takes the form of white crystals, easily soluble, and readily absorbed, either when taken through the stomach or by subcutaneous injection.

Liebreich states, in his recently published pamphlet:—"Chloral is to be regarded as a medicine sure to bring about sleep, and free from unpleasant after effects.

"The peculiar physical constitution of the drug, however, furnishes one decisive contraindication to its use. Chloral dissolved in water is slightly caustic, and cannot therefore be administered internally in cases which present lesions of mucous membrane or ulcerated tracts of the intestinal canal. I suppose that a tuberculous affection of the larynx might perhaps furnish a contraindication. In such cases, however, there is no objection to its subcutaneous injection."

The doses given varied from thirty to seventy-five grains (two to five grammes). Thirty grains produced no sensible effect.\*

In two cases where forty-five grains had been given, the pulse fell in half an hour from 80 to 70 in one case, from 96 to 84 in the other, drowsiness in either case coming on in a quarter of an hour, followed by natural sleep, which began forty-five minutes after taking the drug. Sleep continued in the first case for two and a half hours without waking, and an hour and a half at intervals afterwards.

In the other case, with the same amount, sleep only lasted one and a quarter hours.

\* The chloral used in these experiments was manufactured by Mr. Markoe, of the firm of Joseph T. Brown & Co., of this city.

In two more cases sixty grains were given, the pulse falling in one from 120 to 90, in the other from 90 to 60 in about half an hour, with increasing drowsiness. In the first case the patient did not go to sleep for two hours, and then only slept one and one fourth hours. Whereas the other fell asleep in an hour, sleeping heavily two hours, and at intervals for from two to three hours more.

In another case seventy-five grains were given, the pulse falling from 125 to 100 in half an hour, sleep then coming on and continuing for four hours. It was, however somewhat interrupted, and the patient was roused and made to answer questions without much difficulty.

In no instance did sleep come on in less than half an hour after taking the drug. Two or three of the patients complained, on waking, of headache, lasting from one to three or four hours; but otherwise they seemed to experience no ill effects. Appetites good.

The results obtained with this American preparation will be seen not to harmonize with those of Liebreich, who claims a much greater hypnotic power, having with from one and a half to three and a half grammes (twenty-five to thirty grains) produced sleep which lasted from five to fifteen hours. He also considers chloral an anæsthetic of some power, though inferior to chloroform and ether. Dumarquay, on the other hand, in a recent report to the French Academy of Sciences, states, as the result of a series of experiments on animals and men, that he considers chloral as no anæsthetic at all, as the skin is sensitive, no matter how great the intensity of the sleep. He finds it, however, the most rapid of hypnotics.

NOTE.—Since this communication was made to the Society, Dr. Derry has continued the administration of chloral, with more positive results. One patient, who had been suffering great pain from an ulcer of the cornea, was given gr. ix. early in the evening. The pain was relieved in the course of half an hour, but the patient became somewhat delirious, and, being missed from the ward, was found wandering about alone in the upper stories of the building. On being brought back to his bed he at once went to sleep, passed the night quietly, and continued in a drowsy state all the next day. He exhibited marked cutaneous anæsthesia, as did also a female patient who took the same dose. Forty-five grains were given in a case of Iritis, attended with severe pain, at 1 A.M. The patient, a woman of 60, went at once to sleep, and awoke the next morning free from pain, but complaining of headache.

[WHOLE No. 2183]

## GANGLION.

By M. F. GAVIN, F.R.C.S., Surgeon to Out-patients, City Hospital, Boston.

THOSE surgeons who have charge of the out-patient department of large hospitals know how common it is to meet with cases of ganglion, how dissimilar the histories, not affording means to elucidate many points in connection with this troublesome disease; and how many resist the ordinary treatment as given in hand-books of surgery. So very seldom does an opportunity offer to dissect a ganglion that pathologists differ as to the cause, the actual condition of the parts and the different stages of the disease. The older surgical writers give us little else than the appearances and treatment. In the views of modern writers, there is great discrepancy.

Brausby Cooper\* confounds the disease with bursæ mucosæ, a view that is shown to be incorrect, as bursæ are few in number, and generally placed to relieve pressure from outside or the play of tendons, and a normal part of the body; while ganglion is shown to be an adventitious growth or the dilatation of the sheath of the tendons, and may occur in any place where tendons are, but never in the situation of a bursal tumor. Paget† regards the disease not as new growth, but a dilatation of the fringe-like process of the sheath of the tendon, or a dilatation of the sheath itself. This is the view now generally received, and which Erichsen adopts, classifying these as simple and compound.

It is evident Nélaton‡ does not coincide with Paget and Erichsen, for he speaks of hernia or dropsy of the sheath of the tendons being mistaken for ganglion. Gross§ regards the disease not as a new formation, but a sacculated expansion of the sheath of the tendon, coinciding with the views of Paget. Careful examination leads me to say the disease is very rare among the subjects found in the dissecting room; and others with large experience in the *post-mortem* and dissecting rooms seldom meet with cases of ganglion. However slight this remark, it might afford some ground for hazarding an opinion on the cause of the disease, for there we generally see those past middle age and broken down by dissipation, seldom, if ever, the young and healthy; showing the disease to be more

common amongst the young—under 30 years—and my own experience leads me to the same opinion. We are not aware that any writer on surgery speaks of age as having any influence on the disease.

Cases of ganglion have been mistaken for other affections—for aneurism,\* when in close relation to an artery; for enlarged bursæ, but, as mentioned before, the situation is never the same until late in the disease, when the growth may be such as to change the original seat of the disease; for hernia† of the synovial membrane or dropsy of the sheath of the tendon; and Barton‡ thinks syphilitic deposits in the early stage, when soft and small, may be mistaken for ganglion.

There is a wide difference in the treatment adopted by different surgeons. All the old writers on surgery agree in condemning the use of the knife and seton—the former leading to sloughing of the tendons and the latter to the formation of fungous granulations, which sometimes put on a malignant aspect, while pressure and blisters were looked upon as the only safe treatment. In the present day, some surgeons are in the habit of using the seton altogether, and with excellent results, while the usual treatment consists in using pressure; applying a strong solution of iodine, amounting to the old blistering method; crushing, by forcibly striking the parts with a book or other solid substance; subcutaneous division of the sac with a tenotomy knife—an excellent way of treating the disease; and, lastly, we have removal by extirpation. As to the last-mentioned method some excellent surgeons have condemned it as uncalled for and an unnecessarily severe proceeding. Of this method Nélaton says—"l'extirpation serait à peu près impossible." Other equally good surgeons recognize the method as legitimate and to be practised when the surgeon sees fit, and foremost amongst the number stands Prof. Syme, of Edinburgh, while Erichsen has occasionally resorted to the method in curing the disease. We are led to make these remarks by the following case, in which extirpation was practised with excellent result.

CASE.—Was consulted, at City Hospital, Feb. 2d, 1868, by J. F., a colored girl, æt. 15 years, for a tumor on the back of the left wrist, just below the annular ligament, as large as an English walnut, somewhat

\* Principles and Practice of Surgery, Am. Ed., 1852, p. 263.

† Surgical Pathology, Am. Ed., Art. Ganglion.

‡ Eléments de Pathologie Chirurgicale, tome premier, Paris, 1844.

§ System of Surgery. Philadelphia.

\* Cooper's Surgical Dictionary, New York Ed.

† Nélaton.

‡ Pathology and Treatment of Syphilis. John K. Barton. Dublin. 1866.

ovoid in shape, quite movable, and of a semi-solid consistency. The tumor first appeared fourteen months since, following a hurt (?); but not till the last three months has it interfered with her ordinary duties as a servant, when it has grown rapidly. The tumor was evidently a so-called ganglion, developed in connection with the extensor tendons of the hand, but not involving the annular ligament or wrist-joint. Pressure, with tincture of iodine, and afterwards crushing, had no effect on the growth.

We now decided on removing the disease by careful dissection, by this means insuring a radical cure. The superficial situation, with no deep attachments, made us think removal would be easy; while the semi-solid condition was against subcutaneous division unless the knife was used freely, which would involve the subsequent risk of inflammation of the tendons almost as much as a careful dissection of the parts, without affording a radical cure. The patient was etherized, a long incision made over the centre of the tumor, and after a slow and careful dissection the growth was removed entire, without injuring the annular ligament or the extensor tendons, three of which were laid bare in the dissection. The sac was filled with a jelly-like substance, and more firmly and deeply attached than we were led to suppose at first. Very little bleeding followed the operation. A straight splint on palmar side of forearm to insure rest, and cold-water dressing.

Feb. 13th, twenty-four hours after operation. No pain, swelling or redness; wound looks well.

14th.—Some pain last night; no better this morning. Redness and some swelling round the edges of wound and back of hand. Poultice.

19th.—Swelling and redness all gone; wound partly united and discharges very little pus; strapped, and touched with nitrate of silver. Can use her hand. Splint left off.

From this time forth the patient did well, and with the exception of a little tardiness in cicatrizing, the wound did as well as most flesh wounds of the same magnitude. The motion of the wrist and hand were perfect, and no stiffness or weakness followed the operation, as we might be led to expect from the inflammatory exudation binding the tendons together in such a way as to interfere with their free play.

We have been induced to report this case, as it goes to prove that ganglion, in exceptional cases, may be removed by dis-

section without running any great risk of severe inflammation of the tendons or subsequent loss of motion in the parts. From a careful review of the case, we are led to think the disease a cystic formation on the sheath of the tendon, and not necessarily involving its contents. In this case the walls of the cyst and sheath of the extensor tendons were inseparable, as shown by the cyst-walls when removed; in other words, the growth was a true cyst, while the sheath of the extensor tendon was "button-holed" to a size corresponding to the size of the ganglion; while had the ganglion consisted in a dilatation of the sheath, the wall corresponding to the tendon would be wanting.

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## Reports of Medical Societies.

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NORFOLK DISTRICT MED. SOCIETY OF MASSACHUSETTS. REPORTED BY WM. H. CAMPBELL, M.D., OF ROXBURY.

A REGULAR quarterly meeting of the Norfolk District Medical Society was held at the Everett House, Hyde Park, Nov. 10th, 1869, at 11, A.M.

The President, Dr. Cotting, in the chair.

The records of the preceding meeting were read by the Secretary, Dr. Jarvis, and accepted.

The Secretary announced that the President of the State Society had appointed Dr. Jonathan Ware, of Milton, a Commissioner of Trials, to fill a vacancy occasioned by the death of Dr. Ebenezer Stone, of Walpole.

After some observations from the President, reminding the Censors that it was their duty to have regular meetings, to keep Records, and to make annual Reports to the Secretary of the State Society—the subject for discussion was stated to be "*Inflammatory Rheumatism, and its Treatment*;" and the names of the appointed disputants were then read.

Dr. Monroe, of Medway, opened the discussion by reading a short paper, in which he said that Sydenham was the first to use the word rheumatism, as we now understand it, and that the condition called rheumatism by the ancients was very different from that now known by this name. He spoke also of the various and opposite methods of treatment, of the apparently good results following each, and of the difficulty in reconciling the conflicting statements concerning seemingly opposite reme-

dies. He said that opium should occupy a place in every form of treatment, if not to shorten the disease, at least to relieve the patient. It should be given freely and at short intervals, so as to produce and continue the steady, even operation of the primary effect of the drug.

At first the new practitioner would use some vaunted remedy with opium, but the older practitioner would rely upon the opium alone—it was the great conservator of vital force. Avoid exhausting treatment; if you pull down, you have to build up again. Colchicum had often a good effect, but was very uncertain in its action, and did not suit all cases. He could not discriminate between the cases it would benefit and those it would not; but he thought it a better remedy for patients of good strength, than for the debilitated.

He supported his opinions by a reference to cases, in which no good resulted from other forms of treatment, but which were promptly relieved by the exhibition of opium.

Dr. Salisbury, of Brookline, read a paper in which he referred to the various forms of treatment which had from time to time been followed:—to that of Sydenham by repeated bleedings on the first, second, fourth and eighth days, and the use of clysters and ptisans, and the injunction not to use opium or stimulants; of Barlow, who, although approving the method of Sydenham, thought such treatment might do for mild cases, but for the more severe, it would be necessary to accompany the bleedings with purges, colchicum, and antimony, to arrest the evils which inflammatory action is sure to occasion; and of Bouillaud—still later—who followed the rule of Sydenham only to carry it to a greater extreme.

He then referred to the alkaline treatment of Dr. Fuller, and said that it had proved to us that bleeding was at least unnecessary.

He referred also to Dr. Buckingham's treatment with syrup of lime, in which the urine was not rendered alkaline, and gave Dr. Buckingham's result—an average of ten days in twelve cases observed; and of Dr. DaCosta's treatment with bromide of ammonium, in which the average duration was twenty-two and a half days.

He then spoke of the palliative treatment employed by Dr. Flint, in the Bellevue Hospital, with its average of thirty days, and of the observations of Drs. Gull and Sutton, of Guy's Hospital, in which the "mint-water" treatment was employed, and in which the result was an average of seven-

teen days; and he thought that more observations on cases treated by the expectant method were necessary to reconcile the discrepancies which seem to exist between these two sets of observations.

He said it would not be difficult for each of the members of the Society to furnish within the next five years one case observed with a view of learning its natural history, and the aggregate of sixty cases would form a valuable contribution to our knowledge. Such a case had occurred to him lately, in a child of eleven years, who almost entirely refused to take medicine, and who appeared to recover completely.

Dr. C. E. Stedman, of Dorchester, read a paper. His own experience was not so very great, as he lived in a very healthy town, but he would give some of the views of others. He thought the alkaline treatment an improvement over the old methods of bleeding, purging, &c., and quoted from Niemeyer's article on Acute Articular Rheumatism, calling attention especially to his recommendation of quinine in large doses (ʒi. to ʒss. in the twenty-four hours), which he says is an antipyretic when so administered. Niemeyer also recommends opium in conjunction with the quinine, and wrapping the affected part in batting. Dr. Stedman said that in his own practice he used the powder of English colchicum root, or corn, ʒss. in the twenty-four hours, given in doses of gr. v. at a time, and with good results. He also prescribes a milk diet, objects to blisters, and gives Dover's powder to obtain relief from pain. Syrup of lime had failed in his hands.

The discussion now becoming general—

Dr. Alden, of Randolph, said that bleeding freely had been the practice in his early years, but he had got round so far that he used for the most part opiates, in the form of Dover's powder. Opiates, good diet and warmth were what he relied upon. Quinine he had used, but with very little effect.

Dr. Tower, of Weymouth, had used the alkalies, with opium. He had formerly used the powdered English colchicum in quantities of ʒss., in combination with ʒi. of Rochelle salt, in the twenty-four hours, but had of late relinquished it.

Dr. Edwards, of Hyde Park, said that he had had the disease twice. The first time he was treated with colchicum, the second time by alkalies, and he preferred the alkalies.

Dr. Tirrell, of North Weymouth, said that Doctors had their hobbies; he had read all the theories, and he did not believe that

the disease could be much shortened by any course, but that the patient could be made more comfortable. He used subcutaneous injections of morphia; and he also used aconite, and the alkalies. He usually had good results. Diet and clothing were of importance.

Dr. Goss, of Roxbury, spoke of cases he had observed, most of which were treated with alkalies and opiates; and of others in which—after the suggestion of Dr. Da Costa in Penn. Hospital Reports—the bromide of ammonium had been employed. In a part of these latter cases, the alkaline treatment had been employed, and had seemed to disagree, while in all in which the bromide was used, it had relieved the pain, produced sleep, and appeared to act favorably in every way.

He also spoke of sulphur as a useful external application in inflammatory rheumatism. He had seen also one case in which, in two different attacks of swelling of the joints following acute rheumatism, the hypodermic injection of one-sixtieth grain of sulph. of atropia over the inflamed parts gave immediate and permanent relief.

Dr. Bacon, of Sharon, said that he believed that rheumatism would run its course in about twenty days, but he thought it might be cut short of that time by appropriate treatment. One agent would give relief in one case, another in another; but no agent was always sure. Bloodletting had not seemed to him to cut the disease short. Purgatives had done good in his hands, and he once used croton oil with excellent effect in relieving the pain; but he considered opium as the best remedy.

Dr. Edes, of Roxbury, said he should incline—theoretically—to the use of the alkalies, but could not say much from practical experience. He had suffered from an attack of the disease, and had been treated with colchicum with good effect. He thought, however, that if he had the disease again he would incline to have blisters tried.

Dr. Bass, of Hyde Park, had found tonics, such as quinine with opium, to act well, but thought there were no specifics. He favored the alkaline treatment, but said that no two cases could be treated alike. The treatment must be suited to the cases; but if compelled to settle down on a specific plan, he would adopt the alkaline. External applications did little except to protect the parts from the cold.

Dr. Martin, of Roxbury, spoke in favor of the alkaline treatment, to be followed up with quinine; opium to be given only to

relieve pain, and spoke particularly of hypodermic injection of morphia. He also recommended moderately cold lotions, composed of two drachms of bicarbonate of soda to a quart of water, to be applied by cloths wet with it. He also recommended the use of bandages of India rubber in cases where there was much pain and swelling left after the acute stage of the disease had passed.

Syrup of lime had completely failed in his hands. He thought that the cases in which the iodide of potassium did good were not cases of true rheumatism, but of periosteal pain, the consequence perhaps of long courses of mercury.

Cod-liver oil acted best in old persons who had chronic rheumatism—probably by increasing nutrition, and not through the effect of its propylamin.

Colchicum suited gouty cases, but no other.

Dr. Streeter, of Roxbury, thought he had seen treatment do good; he could not say it had cut the disease short, but the patients had been relieved. Alkalies had seemed to him to shorten the attacks. Cool applications, often applied, gave great relief.

The shortest case he ever saw ended on the third day, under the use of veratrum viride, in an accidentally excessive dose; the dose taken being enough to produce alarming depression. In former attacks, the same patient had been confined to the house several weeks at a time; since the time spoken of, he has had attacks, and thought he shortened them by resorting to large doses of the veratrum viride.

Dr. Edson, of Roxbury, said that one case had come under his notice in which a lady was in the habit of using the tincture of veratrum viride to control the attacks of rheumatism to which she was subject; and that she usually obtained relief by inducing the specific effect of the drug.

Dr. Miller, of Dorchester, had contented himself with the use of the tincture of colchicum seed, Dover's powder, and an external application of the ethereal solution of iodine. In chronic rheumatism he had used lemon juice.

Dr. Arnold, of Roxbury, spoke of the use of simple water dressings, covered with oiled silk, as giving great relief.

Dr. Jarvis, of Dorchester, spoke of the suddenness of the attacks and their apparently spontaneous sudden cessation.

Dr. Holmes, of Milton, said he had a good deal of faith in local applications of the ethereal solution of iodine, used to the point of vesication; and water covered by

oiled silk to produce local perspiration. He thought that India rubber probably owed its effect to this local perspiration.

Dr. Bacon spoke of the use of calomel in treatment of rheumatism, and said he had heard it praised by an eminent practitioner as an agent capable of giving great relief, and almost invariably arresting the disease.

Dr. Martin said that calomel had in his experience done good in cases of cardiac complication, but he would not use it in cases where no such complication existed.

In closing the discussion the President remarked that he had always considered rheumatism to be, not a disorder merely, but a *disease*; one as readily diagnosed as other acute diseases; one having its own peculiar manifestations, and in this connection he might quote from a discourse which most of the members probably had heard of, and a few perhaps had read—that “this disease, with one central constitutional morbid cause, shows itself on the outposts in most astonishing ways; now at the end of one extremity, and in a moment, as it were, leaving that part to appear in a distant one, on the other side of the body. When fixed upon any portion, no one can with any certainty hasten or retard its departure; say how long it will remain, or predict what will be its next point of attack.”

This, said five years ago, he still believed to be a true statement. Whenever the *element* essential to the development of a disease produces its *influence* in an individual, the *series of events* peculiar to that disease will follow. Which part in the “succession of processes” will be the first attacked in acute rheumatism cannot be foretold. In some, it will first appear in the extremities; in others, in the heart. He had recently been called to a patient with pain, supposed neuralgic, without swelling or redness, in the wrist. An examination of the heart, already characteristically affected, led him to diagnose acute rheumatism, which was subsequently confirmed by its unmistakable appearance in several of the joints.

The proportion of attacks in any one part to the whole number of cases may vary in different years, or in the practice of different physicians in the same year, without apparent cause.

It is a self-limited\* disease; else how

\* “Incurability of diseases,” . . . “not incurability of patients”; “Incurable acute diseases,” are terms used by Mr. Living in his address Oct. 1st, 1869. *Cyclical* is the German term for the same idea (though Niemeyer says rheumatism is not a cyclical disease). These expressions (the first being peculiarly unfortunate), not better than *self-limited*—are not yet demanded by science.

account for the “great success” claimed for each one’s favorite drug or applications—to say nothing of the forty medicines of Stillé, an equal number of “new remedies” in Dunglison, and the unnumbered methods of Copland and others. It may cease in the first point attacked, the heart, for example (he has seen such cases), though oftener it will occupy several parts before its course is completed. The order of its coming and its progress cannot be controlled by any known means. This we may as well confess, to be honest, in the outset—the “cure” of a disease as popularly understood being one thing, and a rational professional *care* of it another and quite a different matter. Any simpleton can prescribe remedies so called (my porter will not hesitate to do it, says M. Peisse), but the wisest may well despair of always attaining the best treatment.

“It was owing to this uncertainty as to the best mode of treatment” (says the Hospital Report for 1868) “that the physicians at Guy’s determined to study the disease uncomplicated by remedies; for it was assuredly true that no one knew what course rheumatic fever might take if left alone.” Long ago, the President said, he had tried the “uncomplicated” plan without drugs, and five years ago had publicly stated that, while such a course “required greater patience and painstaking on the part of the practitioner, the result was satisfactory.” He had been in the habit of rallying his professional friends on their *real* “scepticism” as shown in their treatment of rheumatism—at one time bleeding and purging, at another blistering and shampooing, again vomiting and sweating the patient—now, resorting to cold, and now, as the fashion changes, to hot applications; in the meantime throwing in calomel, colchicum, opium and cinchona—not long ago filling his stomach with acids, now again crowding in alkalis to “saturation”—in short, tossed to and fro, and carried about by every wind of doctrine. Surely, such is not faith according to knowledge. Surely, if anything could cast doubts on the efficacy of medicines, such vacillating treatment must have this effect. He believed in a suitable and proper treatment, curative,\* and by medicine, for the safety and comfort of the *patient*—indeed, it was hardly possible to overestimate its value. He believed also that rheumatism, like other acute diseases, has a tendency to terminate in the restoration of health, though

\* Curare—to take care of.



no drug be given. This, in his view, to use the words of Sir Wm. Jenner, *is fact—knowledge—not scepticism*. Personal observation and experience had long ago convinced him of it. The mint water treatment of Drs. Gull and Sutton will ere long convince the reluctant medical world, and do much towards a more rational *care* of those afflicted with this disease. These gentlemen truly say that “to do this fully will often tax all our energies, and require often more consideration than is requisite for prescribing any supposed appropriate *drug treatment*.” And Sir Thomas Watson, certainly not to be accused of prejudice against drugging, only last year to the Clinical Society, said, “to me it has been a lifelong wonder how vaguely, how ignorantly, how rashly, drugs are often prescribed. We try this, and not succeeding, we try that; baffled again, we try something else.” And last month, to the same Society, Mr. Paget declared that “in nearly all diseases a natural history was wanted, and this it was rare to find, implying, as it did, an almost dereliction of duty, so that we dare not leave a disease clean and pure.”

“If a disease,” says Mr. Wilks, “pursues a certain course—if it has its origin, its progress and decline, surely we ought to know all about these before we can step in with our remedies, and assert that we have altered its course. Does it not seem absurd for any one to declare that he has changed or arrested the course of a disease when he is utterly ignorant of what the natural course of that disease is?” It is precisely this kind of ignorance, the President said, that has multiplied countless remedies, so called, for rheumatism, and tortured victims beyond measure. Now that some of the leading practitioners of London—eminent and experienced men—have set the example, he hoped that others would no longer fear to follow; and that the profession, here as elsewhere, would perceive that belief resting on any other foundation is “unjustifiable faith, foundationless faith, faith without knowledge, faith in opposition to knowledge, which in medicine is the worst form of scepticism, inasmuch as it implies doubt of truth and belief in error” (Jenner).

“Four or five years ago,” says Mr. Wilks, “there was a discussion on the treatment of rheumatism; and if a non-professional writer to the Society had suggested that rheumatic fever patients might recover without medicine, none could have contradicted him. But now, by obtaining a knowledge of the natural history of the

disease, physicians were on the road to its proper treatment.”

Fortunately, this rational course has now at last been happily inaugurated, and much may be hoped for in its results hereafter. It is a safe course, and we have assurances from highest authorities that it proves beneficial. At any rate, all the complications of the disease and all its lamentable sequelæ have followed other methods. Possibly they may not follow this. The best course for the patient we are seeking for, not merely a few days more or less of temporary confinement in the house or the hospital. Let us then fearlessly study this disease, undisturbed by medicine, whenever an opportunity is afforded us. If, as has been suggested to-day, only one case of this kind in five years be brought here by each one of us, we should soon have valuable data to practise upon. Let us do what we can that here at least the authoritative statement of Dr. Lee, that “American practice in rheumatism is more bold than judicious, more hap-hazard than discriminating, and in many cases more injurious than beneficial,” may henceforth, so far as we are concerned, cease to have any foundation in fact.

After the discussion was closed, Dr. Stedman, of Dorchester, called the attention of the Society to the case of Surgeon C. L. Green, late of the U. S. Navy. [This matter is referred to in another part of this JOURNAL.]

The Society then adjourned.

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## Bibliographical Notices.

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*Resources of Southern Fields and Forests, Medical, Economical and Agricultural; being, also, a Medical Botany of the Southern States, with Practical Information on the Useful Properties of Trees, Plants and Shrubs.* By FRANCIS PEYRE PORCHER, M.D., &c. &c. New Edition, revised and largely augmented. Charleston. 1869. Pp. 733.

THE volume to which the above attractive title introduces us is a new and enlarged edition of a work prepared under authority during the late war, for use in the Confederate States. It is intended as a manual of popular and scientific information, relating chiefly to the various properties of the vegetable products of the South; its purpose being to diffuse a more general and accurate knowledge of the capabilities of Southern soil, and thereby aid in the

development of Southern resource. The reputation of Dr. Porcher is an assurance that the work could not have been entrusted to better hands. A thorough knowledge of the Medical Flora of the South, and a mind trained to scientific study, especially qualified him for such an undertaking; and it is obvious at a glance that he has spared no effort to make his work as complete as possible. He has availed himself of every accessible means to aid him, and has given us, as the result, a pretty complete medical botany of the Southern States; this catalogue, however, including many plants not strictly medicinal, besides some others of foreign growth, believed to be capable of naturalization.

With regard to its Medical Flora, the South seems to be especially favored. It is stated by Dr. Porcher that one locality in the northern part of South Carolina, not far from ten miles in diameter, furnishes one and one third more medicinal plants than the whole State of New York. And the Flora generally is far richer than in more northerly latitudes, containing a vast wealth of material adapted to the numberless wants of civilized life.

As has already been stated, the ultimate design of the author was to serve an economical purpose, and to aid the industrial resources of the State by bringing into more general use the plants indigenous to the soil, and also by promoting the cultivation of those of foreign production. So far as the conditions and character of the Southern climate are concerned, the latter suggestion seems not impracticable. With a soil of extraordinary richness, and geographical relations closely resembling those of Eastern Asia, and a climate as mild and varied as that of Southern Europe, there appears to be no good reason why the South may not one day become a garden for home and foreign supply of medicinal and non-medicinal products. If we take the tea-plant as an example, we find that it produces a large yield, even larger than in China, and being a sure crop could not fail of returning a pretty certain profit. The quality of the tea is also found to be equal, and it is even asserted superior, to that of the imported article. It appears from the Patent Office Reports that the best rhubarb thrives in the Middle and Southern States, if carefully cultivated. The experience of the late war in the South, shows the great inconvenience of being deprived of a drug, certainly not among the most important, although possessing a high popular value. It is stated that, notwithstanding the enormous

price of this medicine, the amount imported during the war exceeded that of any other. The poppy has also proved itself easy of cultivation, producing an excellent quality of opium. Dr. Porcher even states that he collected at one time, during the blockade, an ounce of opium from garden specimens of the red poppy, which had the odor and the general appearance of the best specimens of the drug. How far certain imperceptible differences in soil and climate might modify the strength and value of the active principles in many foreign plants, can only be determined by time and experiment. Besides those already alluded to, there are many others, valued chiefly for manufacturing or domestic purposes, to the cultivation of which Dr. Porcher devotes much attention. Among these may be mentioned flax, indigo, the olive tree, the mulberry, the castor-oil plant, the maranta, tobacco, the beet, &c., all of which would be found to thrive and produce most profitable crops under proper management.

We shall not attempt to specify even the more important in the list of medicinal agents here presented, many of which are more or less familiar to us through the pages of the United States Dispensatory. It will be sufficient to say that every class is largely represented. Among these, besides astringents, antiperiodics, simple tonics, almost without number, we find emetics, cathartics, diuretics, sedatives, antheimintics, and a host of other products whose exact value is yet perhaps to be determined, but many of which on careful investigation might prove to possess most important therapeutical properties.

Among the non-medicinal plants included in this catalogue are also a great variety capable of being converted to every conceivable use. The book is indeed a perfect encyclopædia of practical information on all matters pertaining to the adaptability of vegetable products to the various purposes of life.

We quite agree with our author in urging greater attention to the general study of botany, and in the suggestion of the establishment in our cities of central botanical gardens, in his view as important to the State as geological surveys. Many of our medical schools might well profit by the hint, for how few are the opportunities enjoyed by the medical students of most of our colleges for this necessary branch of study! Either from insufficient endowment, or an indifference on the part of the student, arising perhaps from an underesti-

mate of the remedial action of drugs, it cannot be denied that by far the largest number of our candidates for medical honors are sadly deficient in their knowledge of the first principles of structural and systematic botany.

It is to be hoped that the remark of Dr. Porcher with reference to his own State can never be said to apply to the profession nearer home; "that it is rather regarded as a reproach for the educated physician to be at all addicted to botanical investigations, or that he should possess the outlines of a practical knowledge of general or medical botany."

Our author has something to say in his preliminary remarks on the subject of enlarging the area of available land in the South by a system of irrigation and swamp drainage. The results of such an undertaking, if successfully executed, cannot be overestimated, whether we consider its effects on the public health, by destroying those centres of malarial influence so fruitful of disease; or, more indirectly, by rendering white labor a possibility, and thus elevating morally a large class hitherto debarr'd from cultivating the soil, and with whom idleness and vice had become almost a necessity. The results of similar enterprises in other countries show that an increased revenue is not among the least of the benefits to be expected from the enormous area of rich and fertile soil thus made available.

It is also urged that mills and manufactories be established for the consumption of the raw material hitherto transported to other parts of the country to be prepared for use. When we consider the resources of the South and the rapid development that must certainly follow, should these suggestions be heeded, it would be difficult to compute the wealth that would accrue to the State. That this revolution has actually begun in many parts of the South is certain. A foreign official residing in Alabama, in a recent report, alluded to the remarkable changes everywhere going on in that State, and dwells at length upon her "unrivalled resources, her minerals, her water, her factory power, her mild climate for continued labor, her forests, her advantages for railroad and water line system, her diversity of soil and climate."

It would be obviously impossible in a work of this character to give anything like a just notion of its merits. It touches upon every point bearing directly or indirectly upon the vegetable products of the South, whether for the purposes of medicine, sci-

ence, or mechanics, and contains upon every page practical hints and suggestions without number.

The book is the result of great labor; it is written in a philosophic spirit, with a high and patriotic purpose, and the author has conferred a benefit on his countrymen and the profession that cannot fail of its reward.

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*The Principles of Naval Staff Rank; with its History in the United States Navy for over half a Century.* By a Surgeon in the U. S. Navy. 1869. 8vo. Pp. 210.

Since this pamphlet was received a commission has been duly appointed by the Naval Department to determine definitively the matter of which it treats—namely, the relative position of the medical officers in the Navy of the United States. It would therefore be improper to discuss with any affectation of authority, a subject over which the profession at large has no jurisdiction. But we hold it to be no less professionally obligatory upon each and every representative of medical public opinion, to assist our Naval brethren in their long-delayed but now earnest endeavor to convert a nominal and only assimilated, into actual and potential rank, with its attendant pay, prizes and emoluments, and if not "command," at least independence of the caprices, exactions and oftentimes malice of their inferiors in rank and juniors in date of commission, who may happen to be in linear or in executive authority.

The pamphlet under review details the origin and history of what has come to be in plain terms a quarrel between the naval line and the medical officers. The line being practically limited to combatants, the staff is supposed to include surgeons, paymasters, chaplains and engineers. But for very obvious reasons, the medical officers have at last decided to rest their claims upon an independent basis, cutting adrift as incumbrances the other classes, or leaving them to do battle if they are so disposed, in their own way, and for such ends as may be most desirable to them. The forces of the surgeons are so far concentrated and their position much strengthened.

We can hardly regard the essay before us as a dignified production. But it contrives to say, after its own fashion, about everything that we conceive it to be possible to say upon that side of the question, and to represent as ineffably ridiculous about everything that has ever been said on the other side. With much ability; with com-

plete grasp of, and thorough intimacy with, the whole business; with intensity of zeal and honesty of purpose; with sound common sense and much erudition; still in far too great a measure its ability is unadvisedly contemptuous, its knowledge expended upon subordinates, its zeal misapplied, its purpose often divergent from the legitimate mark; its common sense in too close coquetting with nonsense, and its erudition employed in variegating the stern outlines of grave facts and official documents with, as accurately as we can compute them, some eight hundred quotations from all sorts of authors in all sorts of tongues. Very evidently our author has come off conqueror in too many a contest on paper or under the mahogany tree for his own good. He shows the fatal error of most men who have not had the good fortune to be occasionally overmatched, of underrating or despising the enemy. It must not be forgotten that the line have a right to infer that the medical officers have abandoned the claim for linear rank on behalf of the other staff officers as untenable.

The controversy began nearly sixty years ago, with a warm acknowledgment of the services of the surgeons in the war of 1812 by the line officers, prefatory to a memorial from the latter to the Navy Department asking for a definite rank in the service; and it was then elaimed and admitted that "the rank and pecuniary emolument ought to bear some proportion to what gentlemen of professional eminence would be entitled to in private life." In 1817, the Board of Navy Commissioners reported that "it seems to be just, that inasmuch as the duties and responsibilities call for an equal degree of professional knowledge as well as of responsibility of character with those of the army, they should be put on the same footing with respect to rank, pay and emoluments." This is to the letter but what the surgeons then asked for and have continued to ask; and it is this plain, reasonable and modest demand that the line are now banded together to resist, as ruinous to what they assume to be exclusively "their" Navy. In 1833, 1841 and 1843, successive Secretaries of the Navy provided for such rank in various codes of naval regulations, which Congress always failed to ratify. In 1846 Mr. Bancroft, finding that between Congress and the Department all the attempts of the staff to secure definite rank fell to the ground, fixed, as he intended and supposed, such rank by the order of August 31, 1846.

In 1850, an "able and elaborate" pam-

phlet, which our writer asserts remains unanswered, gave "a brief history of an existing controversy on the subject of assimilated rank in the Navy of the United States," in which the facts and arguments on both sides were exhaustively and precisely stated.

The point in the dispute with which at present we are exclusively concerned is—that the whole body of Naval medical officers, two hundred in number, complain to their professional brethren in civil life that they are aggrieved by the present relative position of the medical and the line officers as injurious to themselves and the public interest. It is admitted generally that the controversy is detrimental to the service, which should work as a unit. The better class, that is the maturer minds, of the line, it is affirmed, coincide with the surgeons as to the remedy, which rests upon the fact that rank is an essential and vital element of the service.

But the *majority* of the line, comprising the younger and more active officers, still hold to the prejudices which their seniors have abandoned. It is these who have opposed upon all occasions and in every way, and hitherto effectually, all claims of the medical staff to what they regard as their rightful position in the service. In spite of codes, orders, or regulations, all of which they interpret in their own interests and execute as they interpret, for fifty years the surgeons have only obtained by courtesy what has been due and is now demanded as of right. And the arbitrary suzerainty which controls these relations is not even an established or recognized custom of the whole line, but depends upon the caprice of every individual officer as to every detail of official relation with himself.

We are told that the line officers graciously tender a "social equality," they only refuse "official equality." To those of us who may happen to be acquainted with the social positions, antecedents and surroundings of both classes, any such admission would only provoke a smile, as does the analogous statement, "the line has conceded to the staff a uniform and assimilated rank amply sufficient to give them highly respectable positions." (!) So far as our own experience goes, the highly respectable position of gentlemen who have spent from seven to ten years in educating themselves at their own expense (and it should always be remembered that the line officer is educated from the start at the expense of his government), have done much more in the way of making the Navy re-

spectable than the Navy can ever do for them in that way.

It would seem that injudicious writers from the other side are doing all they can to fan the embers of discontent by gratuitous contempt. "Sarvey," for instance, whom our author quotes, says "it is an insult to our noble sea heroes to bestow the honorable distinctions of the navy proper upon men whose duties are not absolutely essential, and who run no great risk or exposure." The mean and cowardly slur contained in this sentence was conceived in a far different spirit from that commonly supposed to inspire nobility or heroism. No budding Farragut, for instance, ever could have penned it. The peculiar exploits of our navy, with few exceptions, during the late civil war, made no great demands upon the personal physical courage of its heroes, but in the military service the memory of our own noble "dead upon the field of honor" is too fresh for us to be moved by such a sneer to any other feeling than pity and disdain.

The same writer ("Sarvey") asserts that the whole theory of staff rank is "rank humbug"—that staff officers are "merely classed with certain grades of the line to give them a semi-naval status on certain occasions;" that the term "ranking with," conveys to the line officer no idea of power, authority or command whatever, as those terms are associated with the ranks of all linear grades." This is precisely what the medical officers complain of, and just what they are moving for:—that these terms shall be *made to mean*, as applied to the staff, just what they mean as applied now to the line.

The surgeons are tired of seeing this self-exalted body looking down on the staff "once, as an aristocratic class claiming all honors and dignities; the staff, as if sprung from the *bas monde*, hopelessly shut off by an impassable barrier from official equality, to which no amount of merit, no length of service can ever entitle them." The writer of our pamphlet avers that he is guiltless of ever having advised any friend of his to enter this hopelessly humiliated corps. The naval captains want to "ship their own doctors." So far as such captains might be concerned, it would be fit retribution for their own fractures, amputations and fevers to be managed by such "surgeons" as they would be likely to "ship," but the Department would outrage civilization were it so to imperil the lives of seamen. It will be seen, however, how far the line are ready

even to degrade the whole service rather than yield the factitious distinction they have contrived to establish.

One of the consequences of the present unhappy state of things is that in a corps of only 200, there are already 48 vacancies which the chief of the Bureau says "it is impossible properly to fill." And personally *we know this to be so*. The late Dr. Gilchrist, himself always as proud of the Navy as the service had reason to be proud of him, repeatedly solicited the present writer to try to induce some of the more promising medical students in this city to qualify themselves for the naval service; and his own and our own experience may be stated in the exact language of the Report of the Chief of the Bureau, viz.:—"Young gentlemen fitted by their ability to enter the medical corps" were "unwilling to join a body offering in return no adequate remuneration in pay, rank, or promotion. Talent, skill, and professional knowledge" (preferred to) "seek their reward through more speedy and desirable channels." And further comment is superfluous.

W. O. J.

*A Guide Book of Florida and the South, for Tourists, Invalids and Emigrants.*  
By DANIEL G. BRINTON, A.M., M.D.  
Philadelphia: George Maclean.

THE amount of valuable and practical information which Dr. B. has incorporated in his unpretending little book makes it indispensable for any person designing a southern trip.

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## Medical and Surgical Journal.

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BOSTON: THURSDAY, DECEMBER 2, 1869.

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### NOTES FROM FRENCH JOURNALS.

*Claude Bernard on the Physiological Effects of Morphine, and on their combination with those of Chloroform.*—We give an abstract of a portion of Bernard's elaborate paper on the combined effects of morphine and chloroform, published in the *Bulletin General de Thérapeutique*.

In order to put a dog of average size to sleep with morphine, it generally suffices to inject five centigrammes of the muriate into the subcutaneous cellular tissue. M. B. exhibits to his class a dog which has

been treated in this way, and shows the animal to be inert and motionless; but remarks that even 15 centigrammes and upwards may be given without endangering the life of the canine subject. He then operates *seance tenante* on another dog, injecting him with ten centigrammes—half under the skin of each axilla; making a statement worth taking note of for therapeutic application—viz., that this division of the injection into two parts augments the absorbing surface and contributes to rapidity of action. The desired result in the experiment cited was obtained in five minutes. He demonstrates that the animal has fallen into a state of stupefaction which renders him quite immovable, pointing out that were it not for the morphine the creature would not have remained extended on the table without trying to escape. The dog had ceased to take cognizance of the place where he was, and no longer recognized his master. Yet the sensibility persists, says Bernard; for if the animal be pinched it moves and cries out. But, adds the experimenter, these are only reflex movements—there is no attempt at flight or defence—the intellectual faculties are completely benumbed.

Our physiological teacher now proceeds in the following train of remark. Morphine exerts an action the physiological essence of which we do not as yet precisely understand. But, we may say that it bears by election on the elements of the nervous centres, and perhaps also on the sensitive elements. Yet, far from suppressing the sensibility completely like chloroform, morphine in a manner exaggerates the excitability, or rather produces a kind of special sensitiveness to noise. In fact, this special sensibility manifests itself when the board on which the animal lies is struck, or when a somewhat loud noise is made a little way off. He is seen to tremble in all his limbs, and give a start, or even take to flight, having a wild expression in the eyes. In proportion to the intensity of the shock in frogs, this exaggeration of the excitability may become so great as to simulate the effect of strychnine.

After the period of exaggerated excitability, prostration usually sets in and in-

creases to a certain degree of intensity, where it persists for quite a long time. Then the animal comes to himself, and in awaking passes through a new stage of excitability. The intellectual phenomena are the first to be affected and the last to reappear. It is sometimes requisite to wait twenty-four hours for the return of the normal state in this respect. M. B. dwells on the fact of the immobility to which the morphine reduces the dogs experimented upon; which immobility is so great as to allow of their being placed under a stream of water without being tied or muzzled.

The strong doses of opium or morphine\* employed by Bernard produce, he repeats, the stupefaction of the animal, and by consequence, its immobility, while allowing its sensibility to remain. At the commencement of the experiment the animal cries when pinched. Later it cries less, but still withdraws its paws. The nerves are only slightly blunted.

Instead of operating as above, we can with weaker doses of morphine obtain a moderate degree of stupefaction, and then suppress the excitability or the sensibility by means of another agent which acts specially in this way, as, for instance, chloroform. This is a combination which M. B. thinks may prove useful and worthy of examination.

He was led to discover this order of phenomena in the following manner. Five years ago he was making experiments with the alkaloids of opium. A dog which had undergone the action of chloroform, while coming to himself, the pupil having already recovered its sensibility, had injected under the skin of its axillæ five centigrammes of muriate of morphine. The animal soon fell into a state of stupefaction which was quite natural, as the dose of morphine requisite to produce this effect had been given him. But, what was curious in his condition, was that the chloroformic insensibility returned at the same time. It would not have been astonishing if the two effects had co-existed, because the two substances had been given. But, it was very singular that the chloroformic insensibility should have manifested

\* It was morphine that was used in the experiments described.—Ed.

itself anew after having disappeared, since no new dose of chloroform had been given which could explain the return of the anæsthesia.

The same week in which M. B. was accidentally led to this experiment, the same phenomenon was also observed in the human subject by a German surgeon, M. Neubaum. This surgeon was extirpating a tumor of the neck in a woman. The chloroformic anæsthesia had been maintained for about an hour, the operation not being as yet terminated. Not daring to prolong the action of the chloroform further, in the fear of compromising the life of the patient, M. Neubaum conceived the idea of substituting morphine, which had been employed in surgical operations before the discovery of the anæsthetic properties of chloroform. But, instead of obtaining merely the effects of the morphine, he saw the chloroformic anæsthesia remain stationary, and for a long time.

It is important to know that if the experiment first made be reversed the results are not the same. Giving chloroform to an animal already under the influence of morphine, you find a different state of things. Here is a dog which got morphine a little while ago. He is in the condition produced by the alkaloid at the outset. His sensibility, or rather his excitability, is much exaggerated. We make him inhale chloroform in a dose much smaller than would be necessary to produce anæsthesia in the normal state; and this sensibility, although it had been previously exalted, disappears very rapidly. The animal is under the influence of the morphine and of the chloroform together. M. B. knows no other means of rendering animals so completely motionless.

In physiological experiments Bernard, therefore, combines chloroform with morphine, but gives the morphine first and then the chloroform. When the chloroform is used first, the insensibility produced is prolonged a very great while by superadding morphine; whilst when the morphine precedes the anæsthetic, scarcely is the inhalation of the latter interrupted when the sensibility reappears very quickly. Thus we have a means of alternately suppressing

and re-establishing the sensibility very rapidly—an important thing to do in certain cases.

Bernard goes on to say that this combination of the effects of chloroform with those of morphine may be serviceable in surgery. But, as sulphuric ether supplies all our wants in this direction, we forbear to follow him further in this path. The monograph contains much more, also, of physiological dissertation, which we have not space to report here.

It should be borne in mind that comparison of these experiments with those on opium, which we quoted in our notice of Dr. Hammond's book on "Sleep," a short time since, is invalidated by the fact that it was *morphine* that was used by Bernard. It is also worth while to remember that Dr. Hammond did not give the opium till long after the animal had recovered from the effects of the chloroform.

*Surgical Poisoning.*—In an abstract of a clinical lecture (*Union Médicale*) on the above subject by M. Maisonneuve, his theory of surgical intoxication is summed up by the reporter as follows:—1. All constitutional complications (*accidens*) of operations are the result of poisoning. 2. The toxic substance almost always has its source in the death and putrefaction of the fluids secreted at the surface of the wound; though sometimes it arises from certain excrementitious liquids, such as the bile, the urine, the intestinal fluids and gases. 3. The penetration of the toxic fluids into the system is effected through the gaping orifices—cellular, lymphatic and venous—which exist at the surface of the wound.

These three propositions have for their corollaries the two following:—1. The poison must be prevented from forming by avoidance of the death and putrefaction of the secreted fluids; to do this we have as resources subcutaneous operations, and also dressings with alcohol and antiseptics. 2. The dead and putrid fluids, as well as those which are excrementitious, must be prevented from penetrating into the orifices of the wound, either by removing the liquid matter by constant suction, or by effecting the closure of these orifices through cauterization, extemporaneous ligature, or some

other means adapted to each case. In a word, the poison forms at the surface of the wound, or is the product of an excrementitious fluid. Our duty is, then, in the one case to prevent it from forming; and, in the other, from entering. All operative procedures and dressings, therefore, should be done with this end in view.

*Purulent Infection* is particularly alluded to at the close of the lecture; and with relation to it M. Maisonneuve says that whilst on the one hand the greater part of other toxic substances are endowed with extreme fluidity and insinuate themselves easily into the organization, either through a slight excoriation of the dermis, or through the unbroken surface of the mucous membranes; pus, on the other hand, the essential portion of which is formed by voluminous globules, cannot reach the torrent of the circulation, save under the strict condition of its introduction in mass (as in the case of a perforation of a large vein near an abscess, which is extremely rare); or else by suppurative phlebitis, in consequence of which the pus is secreted in the vein itself—the usual mode of commencement of purulent infection.

It becomes, then, important to be cognizant of the development of suppurative phlebitis, since by that means we get our prophylactic and therapeutic indications. M. Maisonneuve lays down two conditions as necessary to the occurrence of suppurative phlebitis as a consequence of operation:—1. The existence of the elements of pus formation; 2. The contact of those elements with the lining membrane of the veins.

*Fracture of the Thigh.*—In another number of the same Journal, it is stated that M. Léon le Fort presented to the *Société Impériale de Chirurgie* a patient whom he had successfully treated for fracture of the thigh at its middle portion, by means of a permanent extension apparatus that he employs to make permanent extension with in coxalgia. The recovery, which dated back several months, left nothing to be desired. The patient walked very easily, without limping, and if there were any shortening it was measured by less than one centimetre. There was not that stiffness of the knee that is usual

after fractures of the thigh; and M. Le Fort attributes that result to the care which he takes to secure the movement of the joint from and after the thirtieth day of treatment. He practises extension not by the foot and leg, but from above the knee, by means of strips of diachylum plaster applied in the region of the femoral condyles and maintained in place by other bands. These strips hold very firmly, and bear powerful traction.

OPIMUM AS A PARTURIENT AGENT.—The June number of the *New York Medical Journal* contains an article by P. C. Barker, M. D., of Morristown, N. J., "Concerning the Action of Opium on the Uterus, and particularly as a Parturient Agent." This article has been referred to in various Journals, and cases have been reported in them as confirmatory of Dr. Barker's theory. But, as no such discussion has arisen upon the subject as we were waiting for, we allude to it, now, for the purpose of making a remark interrogatory.

Dr. Barker's last case is a fair specimen of the four examples he cites as showing oxytocic power in opium. It is as follows:

"Mrs. G., 28, multipara. In labor a number of hours. Os uteri remaining about half dilated, and rigid. Gave morph. sulph., gr.  $\frac{1}{4}$ . About half an hour after, while making an examination during a pain, my first and second fingers being applied to opposite sides of the os, in order that I might observe the effect of the pain upon its hitherto unyielding tissues, I was surprised to feel it easily dilating."

"In this case," Dr. B. says, "I suspected that while opium stimulated the fibres of the body of the uterus (longitudinal and oblique), it also relaxed the circular fibres of the os. Further observation, in a large number of cases of varied character, has convinced me that opium, instead of having a general anodyne effect upon the uterus, possesses this special power as a parturient agent. I say general anodyne effect, for while it sometimes quiets uterine contractions (witness its universal use for this purpose), yet it is in those cases in which the circular fibres are called into action alone, or where the longitudinal and oblique fibres contract irregularly—in short, in *false pains*. I am fully persuaded that opium never did or can arrest a physiological labor.



"I have many times been called to cases in which the pains have returned regularly and with increasing intensity for a number of hours without producing dilatation to any extent, and after giving a full opiate have had the satisfaction of finding a marked improvement after sufficient time had elapsed for its absorption, the patient having even harder contractions with less distress than before, and the os uteri being speedily dilated."

Further on he says, "I think that opium meets two important indications in *placenta prævia*:—1. It facilitates dilatation, thus shortening the period of greatest danger. 2. It promotes the expulsive power of the uterus. It also serves to lessen hæmorrhage by a special hæmostatic action."

Opium was recommended by Murphy in his "Lectures on the Principles and Practice of Medicine" (edition of 1852) as a valuable remedy for exhaustion of the parturient uterus; though as he describes its behavior, it may well be that its action is upon the exhausted parturient woman. Rest having been procured, the flagging energies of the entire system renew their strength, and the patient begins as it were her labor anew. A full dose of opium usually stops the labor, when the patient is worn by the teasing of ineffectual pains, and sends her to sleep to awake after a while refreshed, to grapple with more normal parturient functions.

Dr. Buckingham, Professor of Obstetrics at Harvard University, has, however, for many years past, repeatedly given out as the result of his large experience in midwifery, that small doses of opium have a direct oxytocic action.

Now it is to be remarked that Dr. Barker, in the caption of his paper, points out *opium* as the parturient agent. But in the four cases he reports as bearing on this point particularly, it is sulphate of morphine that was given; the dose varying from a quarter to a third of a grain. If, then, the alleged result in those cases were not a mere matter of coincidence, it remains to inquire whether the dose were a small one, as for those particular patients, or whether the effect was due to the fact that sulphate of morphine was used, separated from the other alkaloids of opium. If the latter alternative be favored, then the question would

gather interest in connection with the experiments of Bernard described in a previous column. In those experiments, though the animal was stupefied, reflex action remained. When Dr. Barker gave one-third of a grain of morphine, if the drug was pure, that quantity was—as a soporific—the equivalent to two grains of opium—certainly a full dose for an average parturient.

In view of the following letters, we think that whenever the be-knighted Professor in "Auld Reekie" turns the key of that box covered with crimson velvet, and containing not only the "Freedom of the City," but also probably the various *foreign* certificates of honorary appointment, which he says he has received in greater abundance than any other man in his position—when ever he opens that casket he will do well to repeat to himself the familiar Scotch words, "dinna forget."

*Mr. Editor*.—I was gratified at seeing Dr. Jacob Bigelow's remarks, and also your editorial, relative to Sir James Y. Simpson and his apparent forgetfulness of the fact that anæsthetics were first introduced to the world from this city.

This omission to give due credit to the obvious claims of another is in striking contrast with the tenor of a letter now lying before me, and addressed by Sir James to the late Dr. Wm. T. G. Morton about a year after the latter proved to the satisfaction of Drs. Warren and Hayward, at the Massachusetts General Hospital, the safety and certainty of etherization in surgical operations. (See this JOURNAL, Nov. 18, 1869.)

Sir James's letter is written on a flyleaf of a pamphlet by himself, on chloroform, then but recently introduced into practice.

Appended to this note you will find the principal part of said letter.

Yours truly, HENRY I. BOWDITCH.

"MY DEAR SIR,—I have much pleasure in offering for your kind acceptance the accompanying pamphlet. Since it was published we have had various other operations performed here, equally successful. I have a note from Mr. Liston, telling me also of its perfect success [that of chloroform] in London. Its rapidity and depth are amazing.

\* \* \* \* \*

"Of course the great thought is that of

producing insensibility, and for that the world is, I think, indebted to you.

"With very great esteem for you, allow me to subscribe myself

"Yours very faithfully, J. Y. SIMPSON.

"Edinburgh, 19 Nov., 1847."

A MEDICAL friend writes to us:—

"Dear Sir,—In view of what is about this time said concerning the Navy surgeons, it occurred to me that the enclosed extract from 'Bleak House' would appear well in your JOURNAL. \* \* \*

"Yours truly, W. I."

"By Heaven!" cried Mr. Boythorn, who interested himself strongly in the subject, though I need not say that, for he could do nothing weakly; "I rejoice to find a young gentleman of spirit and gallantry devoting himself to that noble profession! The more spirit there is in it the better for mankind, and the worse for those mercenary task-masters and low tricksters who delight in putting that illustrious art at a disadvantage in the world. By all that is base and despicable," cried Mr. Boythorn, "the treatment of surgeons aboard ship is such that I would submit the legs—both legs—of every member of the Admiralty Board to a compound fracture, and render it a transportable offence in any qualified practitioner to set them, if the system were not wholly changed in eight and forty hours!"

"Wouldn't you give them a week?" asked Mr. Jarndyce.

"No!" cried Mr. Boythorn firmly. "Not on any consideration! Eight and forty hours! As to Corporations, Parishes, Vestry-Boards, and similar gatherings of jolter-headed clods, who assemble to exchange such speeches that, by Heaven! they ought to be worked in quicksilver mines for the remainder of their miserable existence, if it were only to prevent their detestable English from contaminating a language spoken in the presence of the Sun—as to those fellows who meanly take advantage of the ardor of gentlemen in the pursuit of knowledge, to recompense the inestimable services of expensive education, with pittance too small for the acceptance of clerks, I would have the necks of every one of them wrung, and their skulls arranged in Surgeon's Hall for the contemplation of the whole profession—in order that its younger members might understand from actual measurement, in early life, how thick skulls may become!"

[And yet the Chief Lord of the Admiralty in England told one of our surgeons not long since he was thankful to say that the medical officers of the British Navy were not treated as the American surgeon whom he was addressing had fared.—Ed.]

We call especial attention to the remarks on Naval Staff Rank in a bibliographical notice, by Dr. W. O. Johnson, in to-day's issue.

At the quarterly meeting of the Norfolk District Medical Society, held at Hyde Park, Mass., Nov. 10th, 1869, Dr. Stedman, of Dorchester, asked the attention of the Society to a recent trial in the Navy. He read to the members the General Order, No. 140, of the Department, which promulgates the charges against, and sentence of Dr. Charles L. Green, for refusing to take the name of a seaman off the sick list when ordered to do so by his commanding officer. He also quoted part of the article commenting on this sentence from the November number of the *Philadelphia Medical News and Library*, and announced that Dr. Green had resigned his commission as Past Assistant Surgeon in the Navy.

Dr. C. C. Holmes, of Milton, said he took pleasure in moving the following resolutions:—

"The members of the Norfolk District Medical Society, having read the General Order, No. 140, of the Navy Department, containing the charges against, and sentence of Dr. Charles L. Green, late Past Assistant Surgeon U.S.N., *Resolve*:—

"1. To express their sympathy with Dr. Green, and their approval of his conduct.

"2. That the resignation of his Commission was due to the dignity of the profession which he represents.

"3. That while his reprimand stands on record, it is not easy to see how any young gentleman of education and spirit can apply for admission to the Medical Staff of the Navy.

"4. That the present status of the Medical Staff of the Navy, impairs the efficiency of the corps and the service, and constitutes a grievance demanding redress by Congress.

"5. That the Secretary of the Society be directed to send a note of this action of the Society to Dr. Green, and to print it in the *Boston Medical and Surgical Journal* and the *New York Medical Gazette*."

The President, Dr. Cotting, said that he

agreed heartily with the spirit of the resolutions, and suggested that 300 copies be printed for circulation, and a copy sent to each member of Congress from Massachusetts; which was agreed to.

Dr. Hazleton, of Mattapan, in seconding the resolutions, gave some details of his medico-naval experiences.

Dr. Edes, of Roxbury, said he was one of those who had escaped from naval life into freedom, and remarked that the case in question had its origin in the undefined authority and status of the Medical Staff in the Navy. No one who lived on shore could understand the importance of an officer's rank on board ship. On it depended not only his comfort but the respect due from others, and almost his own self-respect. The medical officers did not want *command*, but they desired a position suited to the dignity of the profession they represented. He had the pleasure of knowing many honorable and gallant naval officers who were far above the meanness which could offer indignities to gentlemen of other professions associated with them, but he wished the doctors to receive by law and as rights even more than the privileges which are now often accorded to them by usage and courtesy, but which may be, as in the case of Dr. Green, infringed by the whims or overbearing disposition of a martinet captain.

Dr. Burgess, of Dedham, said he wanted the resolutions passed, not only from sympathy with Dr. Green and the medical corps of the Navy, but also in behalf of the men before the mast who had a claim on the surgeon's judgment and skill.

The resolutions were adopted unanimously.

THE SICK LIST ABOARD SHIP.—A naval surgeon puts a sailor on the "sick list." This does not mean, we are told, that he orders him off duty. It is simply the surgeon's official *recommendation* to the commander of the ship that the man be excused from work. In other words, it is the Doctor's expression of professional opinion that his patient is too sick to aid in working the vessel. If, then, the commander orders the surgeon to take a man's name off his sick list, it is equivalent to telling the Doctor to say he thinks the patient is *not* too sick to work, when he thinks he *is*. What is this but an order to tell a falsehood?

MORPHINE.—*Editor Boston Medical and Surgical Journal.* SIR,—The article copied by you in your Journal of the 11th inst., respecting *morphine*, from a *New York Drug Price Current*, is calculated to do great injury to the drug interests of this city and to us in particular.

Having been intimately connected as manufacturing chemists with the dealers in drugs and chemicals for a period of fourteen years, and the *only house* in Boston whose brand of morphine is known to physicians and the Trade throughout the country, our capability of correctly judging of the truthfulness of such statements is certainly second to no others. We have no hesitation in pronouncing the charges, false and malicious, in the highest degree.

We do not believe that there is, or ever has been, a single ounce of "smuggled morphine" offered for sale in this city. These charges are of a like nature with many others made by irresponsible New York parties against Boston houses, Boston trade, productions, &c., only they are more gross and libellous. They only become worthy of notice or denial, when they are copied into respectable journals.

Yours, &c., JAS. R. NICHOLS & Co.,

Manufacturing Chemists.

150 Congress Street, Nov. 23, 1869.

FRANCIS CODMAN ROPES, M.D., OF BOSTON, U. S.—On the 15th ultimo died one of the most rising surgeons in the city of Boston. A brief notice of his career in a British journal of medicine seems called for, inasmuch as the subject of the memoir was resident for some time in this country, and, in particular, made himself many friends at Edinburgh.

Dr. Ropes was educated at the Harvard University. After taking his doctor's degree, he came over to visit various European schools. By way of qualifying himself to profit fully from his continental studies, he spent his first winter in Dresden, where he worked diligently at languages, and also fostered, by way of relaxation, his love for music. He next worked in Berlin, under Virchow and Recklinghausner, and went, also, to Vienna and other schools of note. He remained some time in Paris, on his way to England, and next proceeded to Edinburgh, to spend the winter of 1863-4. Here the writer of this notice first met him. He came prepared to work and learn, and make the best use of his time; and he was soon installed as an extra clinical clerk under Dr. Laycock. He devoted himself,

with great assiduity, to urology, and undertook, for some months, the daily examination of the urine of forty patients, accurate reports of which he registered. He was constantly in the infirmary wards. His heart, however, was set upon surgery, and he looked forward to practise this department in his native city. He was so desirous to possess a British diploma in surgery, that he underwent the examinations for the conjoined licenses of the Royal Colleges of Physicians and Surgeons, during his stay in Edinburgh, and he had the great gratification, ere he left that city, of being elected a Fellow of the College of Surgeons. He returned to Boston at the end of 1864, during the great war, and was soon engaged in the service of his country as an assistant surgeon in the army. He was never in any action, but did some heavy duty at the military hospital of Readville. He lost a brother in the earlier part of that long struggle. At the end of the war he established himself in surgical practice at Boston, and, in 1867, was appointed one of the Surgical Staff of the City of Boston Hospital. This gave him work in which he delighted and showed great zeal.

An attack of scarlatina, some years ago, left behind it traces of renal mischief, and Dr. Ropes suffered from albuminuria, more or less, ever afterwards. He trusted that, with care, he might not suffer to any great extent. Gradually, however, he failed in health, though carrying on his work with remarkable energy. His last illness was of only a fortnight's duration. A few days after its commencement, he described a peculiar sensation which he experienced in his head, a kind of explosion, and from that time he was delirious, and, finally, succumbed to the effects of uræmia. His age was thirty-two.

Dr. Ropes was beloved by all who knew him. His career was, in all respects, a most exemplary one. He inspired energy and vivacity wherever he went. His life was pure and blameless. Our profession can ill spare such men.—*British Medical Journal*, Oct. 15.

**MEDICAL LECTURES TO MIXED CLASSES.**—A fortnight ago several (female) students of the Women's Medical College, of this city, attended a clinical lecture at the Pennsylvania Hospital. Before and after the lecture the male students made some demonstrations, not to be approved in every respect. The daily press made severe comment on the occurrence, not quite unde-

served, but we also call attention to the editorial remarks of the *Public Ledger* in this connection. It discusses the question, whether *effective* clinical lectures to mixed classes of male and female students are practicable, and if practicable, whether they are desirable? \* \* \* \* \*

\* \* \* \* \* The medical teacher, even the most practical and indurated among our experienced professors, must feel a reserve and an embarrassment while delivering his lectures before a class composed of both women and men. He cannot help it. His training as doctor and gentleman has taught him reserve when talking to women on medical subjects, if other men be present. It will take time to break through this barrier. While it exists, any lecture at which students of both sexes are present, must fall short of what it ought to be. Hence, as it seems to us, the effort to hold clinics in presence of both sexes, should be undesirable to either, even if it is not impracticable. Both the female students and the male students should seek for separate clinics, in order to promote efficiency of instruction.

Since this occurrence the students of the University and Jefferson Medical Colleges have passed resolutions not to attend the Pennsylvania Hospital clinics. We shall recur to the subject next week.—*Medical and Surgical Reporter*.

**HOT WATER.**—A paragraph has been going round the papers to the effect that the Hon. Edmund Burke, when ill, used hot water as a panacea. He used to pour it hot from a tea-kettle into a basin, and sup it with a spoon as one would soup. Hot water consumed in this way forms what the ancient medical world would call a diluent, deobstruent, and diaphoretic. The water, be it observed, should be hot—not what we call *lukewarm*, or, as our fathers would have called it, *bleaw*; for the word *lew* or *luke* (which is a corruption) expresses the whole idea, and the compound word *lukewarm* is, as Horne Tooke said, an unnecessary reduplication, just as if one should say *coolwarm* or *hotwarm*. *Lew* or tepid water makes man puke; but water, as hot as can be sipped, stimulates the stomach, assists it in pushing on ill-digested or half-digested food, moves the bowels, and provokes perspiration and urine. The addition of a squeeze of lemon-juice to the hot water makes it extremely palatable if the tongue is flabby or ill-tasted; and any purgative, followed by this hot drench, acts

quickly in a half-dose. Some years ago, dyspeptics were to be seen sipping hot water just after dinner, for the prevention of gastrodynia and water-brash; but even physicians have fashions, and this one has gone to its own place.\*—*London Medical Times and Gazette*.

At a meeting of the New York County Medical Society, as we learn from the *N. Y. Medical Gazette*, Dr. Jacobi exhibited some experiments with chloral on rabbits; and detailed "the results of his practice with the new agent, since his arrival home three weeks ago, and in every case it had been attended with perfect success, inducing, when the most powerful narcotics had failed, a long, peaceful, refreshing sleep, from which the patient had waked without headache, nausea, or sickness of any kind, and always with increased appetite.

"At the conclusion of the reading of the paper, the President called on Dr. John C. Peters for a few remarks on the subject; who said that he had never experimented with this agent, for there was none yet in the country, except that brought by Dr. Jacobi, but there was some now being manufactured by an excellent chemist, Riderer, and there was also some in port, on shipboard." In reply to the latter statement we would say that chloral was manufactured by Professor Markoe, of this city, in season to be advertised for sale here November 4th, 1869.

**DEATH FROM CHLOROFORM.**—A case of death from chloroform is reported from Oxford. Two drachms of chloroform were administered to a young man, a student of Lincoln College, of 19, in order to the performance of a slight surgical operation. The chloroform was administered on wool in a handkerchief. The *post mortem* revealed a dilated heart with thin walls. It seems probable from the results of *post-mortem* examinations, that weak and dilated hearts are sufficiently common, even amongst robust young men, to lead to distressing accidents with chloroform, and that the weakness is not detectable by ordinary examination. Under these circumstances it is worth considering whether the mixed vapor of ether and chloroform suggested by a committee of the Royal Medico-Chirurgical Society should not be substituted.†—*London Medical Times and Gazette*.

\* Behold the virtues of "herb teas"!—Ed. Boston Medical and Surgical Journal.

† Amen! Provided the proportion of chloroform be infinitesimal.—Ed. B. M. & S. J.

**THE PONS VAROLI THE NERVOUS CENTRE OF GENERAL CONVULSIONS.**—H. Nothnagel (*Virchow's Archives*) arrives at the following conclusions in regard to the *nervous centre of general convulsions*, which are derived from actual experiments. The centre of general convulsions is situated in the substance of the pons. Its lower boundary is corresponding to a section at the height of the inferior border of the pons. The faculty to perform the function of a centre of spasms is to be denied to the substance of the medulla oblongata.

Finally, he endeavors to prove that the spasms are produced by way of reflex action. In some instances the section of the medulla oblongata had been made below the pons, the animals remaining absolutely quiet. Again: the convulsions occurred if the section had left a portion of the pons connected with the medulla oblongata, showing the centre of action to be situated outside of the medulla.

At last the anatomical condition of the region of spasms is confirmatory to the view of reflex action. The region nearly corresponds to the situation of the gray nuclei and root-fibres of the sensitive cranial nerves. While the nuclei and root of the motor cranial nerves are near the raphe, those of the sensitive nerves are more lateral. The root-fibres of the portio major trigemini, in particular, descend, according to Schroeder von der Kolk, through the whole length of the medulla. This anatomical condition, it must be conceded, is no direct proof of a reflex action, but it renders it admissible and plausible.

From all this it seems that the convulsions following the injury of a defined region on the floor of the fourth ventricle are to be explained as spasms induced by reflex action.—*Medical Record*.

**"SECUNDUM ARTEM."**—The old direction formerly contained in prescriptions that they should be compounded *secundum artem* is still sometimes necessary, notwithstanding the advanced knowledge of our times. A *pharmacien* having received the following formula to dispense—chlorate of potash 8 grammes, hyposulphite of soda 4, syrup 62, water 125—to expedite matters, put both the salts in the mortar and commenced a vigorous trituration. An explosion immediately took place, the pestle being propelled to a distance, and the operator getting some bad bruises. To prepare such a formula without danger, the salts should have been separately dissolved.—*Union Pharmaceutique*.

## Medical Miscellany.

**HEALTH (?) OF THE FRENCH EMPEROR.**—A correspondent, who signs himself "one of the oldest subscribers to your Journal in Vermont," thinks it perfectly well understood that the Emperor Napoleon's disease is—something very improper, and which would hardly have the audacity to cling to a royal personage. The last account from over the water is that his Imperial Majesty has fungus of the bladder.

**MINOT'S LEDGE NOT A SUITABLE SITE FOR A LUNATIC HOSPITAL.**—The opinions of several of our leading physicians have been taken on the subject of certain proposed sites for lunatic hospital purposes. Their replies are embodied in the epigram of one of them—that the three worst situations he knew of for an insane asylum were Breed's Island, the Winthrop Farm, and *Minot's Ledge*.

**QUESTIONS TO BE SETTLED.**—Did Columbus discover America in Britain or on this side of the Atlantic? and, Was chloroform the first anæsthetic, or was it an *afterthought*?

**THE Union Médicale** reports a case of operation for the removal of cataract in an ass. Is that anything new?

**NEW PROPERTIES AND USES OF NAPHTHALIN.**—The naphthalin, discovered in 1820 by Garden, is found to be of great importance. Its derivatives have produced benzoic acid, benzol, nitro-benzol, and aniline, as well as fine yellow and red dyes. The yellow was described in a translation from Dr. Brimmeyer in the August number of this Journal.—*Journal of Applied Chemistry*.

**CORD AROUND NECK OF CHILD.**—Churehill says the cord is coiled around the infant's neck once in nine or ten times, especially when the cord is longer than usual. Simpson says the cord was twisted once, twice, or more times around the child's neck, one hundred and sixty-four times out of one thousand four hundred and seventeen cases.—*Medical Gazette*.

**MANIACAL HOMICIDE.**—Another horrible tragedy, by an insane man, occurred in Evath Co., Canada, early in October. James McCarty, who is about 35 years old, had for some time shown decided symptoms of insanity, but was permitted to go at large, until in a frenzy he took the lives of his aged father, Rev. Mr. Hurley, a friend, and of his own son, 6 or 7 years old. His wife escaped. A "*lettre de cachet*" would have saved these lives, but the physician who furnished it might have been dragged before a court for his pains, because, forsooth, under the restraint of a hospital he did not appear to be violent! We fear that it will be a long time before the evils caused by the recent sensational insanity literature will be removed.—*Med. & Surg. Reporter*.

**MYTHOLOGY** tells us that *Io* died "because of her intense love for Jupiter; but the charm of the romantic story has lately been destroyed by a

chemist discovering *Io*-dide of potassium.—*Druggist*.

**ADVICE TO THE MEDICAL CORPS OF THE NAVY.**—Fight it out on this Line!—*Exchange*.

**TO CORRESPONDENTS.**—Communications accepted:—Records of Vermont Medical Society—The Novel Defence attempted at the Trial of Samuel W. Andrews for Murder—Hints to Medical Men about to travel in Europe—Hot-air Bath in Strangulation.

**BOOKS AND PAMPHLETS RECEIVED.**—A Treatise on Intra-ocular Tumors. By H. Knapp, M.D., late Professor of Ophthalmology and Surgeon to the Ophthalmic Hospital in Heidelberg. New York: Wm. Wood & Co.—Notes on the Principles of Population. Montreal compared with London, Glasgow and Manchester, with an Examination of the Vital Statistics by Philip P. Carpenter, B.A., Ph.D., one of the Honorable Secretaries of the Montreal Sanitary Association. By Andrew A. Watt, Montreal. Pp. 35.—The Pathology of Bright's Disease. By William B. Lewis, M.D., New York. With Illustrations. Turner & Mignard. Pp. 30.—Fifteenth Report upon the Registration of Births, Marriages and Deaths, in the State of Rhode Island, for the year ending Dec. 31, 1867. Prepared under the direction of John R. Bartlett, Secretary of State. By Edwin M. Snow, M.D. Pp. 88.

**DIED.**—In Acton, Mass., Nov. 17th (of phthisis), Chas. Little, M.D., aged 33, son-in-law of Dr. Harris Cowdrey, of that town.

**Deaths in nineteen Cities and Towns of Massachusetts for the week ending Nov. 27, 1869.**

Cities and towns.	Number of deaths in each place.	Prevalent Diseases.			
		Consumption.	Pneumonia.	Typhoid Fever.	Croup.
Boston . . .	39	18	10	3	1
Charlestown . .	9	2	0	1	0
Worcester . . .	16	4	3	1	0
Lowell . . .	17	3	1	0	0
Milford . . .	3	1	0	1	0
Chelsea . . .	6	1	1	0	0
Cambridge . .	11	3	0	1	2
Salem . . .	8	2	3	0	0
New Bedford .	14	5	0	0	0
Springfield .	8	2	0	1	0
Lynn . . .	11	2	2	0	0
Pittsfield . .	2	1	0	0	0
Fitchburg . .	2	0	0	1	0
Newburyport .	4	2	0	0	2
Somerville . .	4	0	0	0	1
Fall River . .	8	0	1	0	1
Haverhill . .	2	0	0	0	0
Taunton . . .	4	0	0	0	1
Gloucester . .	8	4	0	0	2
	226	50	21	9	10

New Bedford reports two deaths from measles and three from whooping cough; Springfield two from smallpox.

GEORGE DERRY, M.D.,

Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending November 27, 89. Males, 41—Females, 48.—Anæmia, 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 1—burns, 1—cancer, 1—cholera morbus, 2—consumption, 18—convulsions, 1—croup, 1—debility, 5—diarrhoea, 2—diphtheria, 2—dropsy, 2—epilepsy, 1—scarlet fever, 1—typhoid fever, 3—gastritis, 1—insanity, 1—disease of the kidneys, 2—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 3—inflammation of the lungs, 7—marasmus, 4—old age, 6—paralysis, 4—premature birth, 1—puerperal disease, 2—rheumatism, 1—spina bifida, 1—disease of the spine, 1—stricture of the œsophagus, 1—unknown, 2—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 2—between 20 and 40 years, 20—between 40 and 60 years, 15—above 60 years, 18. Born in the United States, 61—Ireland, 20—other places, 8.

THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, DECEMBER 9, 1869.

[VOL. IV.—No. 23.]

Original Communications.

REMARKS ON STRABISMUS.

By EDWARD G. LORING, M.D., Surgeon to the Manhattan Eye and Ear Hospital, N.Y., and the Brooklyn Eye and Ear Hospital, Brooklyn, Long Island.

[Read before the American Ophthalmological Society, July, 1869.]

MR. PRESIDENT:—At our last meeting I had the honor of reading before the members of the Society a paper on Relative Accommodation.\* My remarks at that time referred almost exclusively to the physiological connection between convergence and accommodation in the normal eye. It is now my desire to lay before you, as briefly as possible, some points which seem to me to be of practical importance in regard to the manner in which these two muscular forces react, or may be made to react, upon each other in strabismus and insufficiency of the recti muscles.

It may be stated as a general law that, within certain limits, by increasing or decreasing the convergence, the amount of accommodation is also increased or diminished.

It was in accordance with this law that the practice, adopted by the early practitioners, of dividing the recti interni in those cases of asthenopia where there was no strabismus, often met with success. This was at a time when the errors of refraction were not understood as they now are, and when the true nature of hypermetropia and its results had not been recognized. At a somewhat later period Donders, with his vast and exact knowledge of the whole subject, could not refrain from characterizing this practice of dividing the interni, where there was no squint, as a "melancholy page in the history of ophthalmic surgery," while on the other hand no less an authority than Von Graefe not only sanctioned this division of the muscles under these conditions, but had even performed it on two occasions.

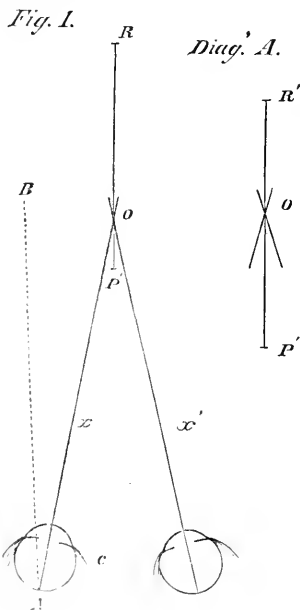
\* Relative Accommodation. Trans. American Oph. Soc., July, 1868.

His justification of the operation and explanation of its *modus operandi* are so admirably given, and so essential for a correct understanding of what is to follow, that I will briefly read them to you in his own words. Von Graefe, speaking of the treatment of asthenopia in hypermetropic eyes, in which, however, there is no strabismus, says:—"There is still another cure for asthenopia which is founded on the displacement of the relative accommodation. If we weaken by a suitable tenotomy of the internus its effective ability, in such a way, however, that a correct position of the eye operated upon shall still be maintained, then every given degree of convergence will be represented by a greater tension of the interni than that existing before the operation, and a corresponding displacement of the region of the relative accommodation toward the absolute near point will be the result. The demands on the energy of the accommodative force will consequently be less." (Arch. 8, ab. ii., s. 320.)

The principle involved in this statement is so important to the subject under consideration, that I would call your attention for a moment to the diagram which I have drawn upon the board (Fig. 1, on next page), which is supposed to represent the condition taken by Von Graefe, that is to say, a pair of hypermetropic eyes suffering from asthenopia, but in which there is no strabismus.  $x$  and  $x'$  represent the optical axes, both of which intersect each other at the object viewed,  $o$ , supposed to be at 14 inches from the eye. In all hypermetropic asthenopic eyes the amount of accommodative force actually used is greater than that which is held in reserve. The amount used in this case may be represented diagrammatically as extending on the vertical line from the point  $o$  to the point  $K$ , that held in reserve as extending from  $o$  to  $P$ .

If we now divide one of the interni, say the left,  $c$ , a certain amount of divergence of the optical axis,  $x$ , from its former position would be the immediate result, exactly as it is in the common operation for strabismus. This divergence may be represented

sented on the diagram by the dotted line extending from the point *B* to the point *A*, and it is self-evident that the tension on the internus, in order to make *x* regain its former position—i. e. intersect with its fellow at *o*—must be as much greater, after the operation than it was before, as the divergence is greater. Now what holds good for one degree of convergence holds good for all; and as we have increased the amount of tension on the interni for every given degree of convergence, we have, according to the law, also increased the amount of accommodation, or, as Von Graefe more exactly expresses it, we have displaced the region of relative accommodation toward the absolute near point. This displacement may be represented by diagram *A* in Fig. 1. The whole relative accommodation will be seen to have been displaced toward the eye; the amount of force actually expended represented in the line by the distance between *o* and *R* is seen to be much less, while that held in reserve is much greater than before the operation.



There can be no doubt, then, as to the truth of the statement that by cutting the interni we increase the amount of tension

for a given degree of convergence, and that by so doing we do indeed, temporarily at least, displace the relative accommodation. But then this can only happen, without exception, when binocular vision was present before the operation and is maintained after it. We can, therefore, by no means agree with the illustrious author when he continues by saying:—

"When, on the contrary, in consequence of hypermetropia, convergent squint has resulted and characterizes the patient, not only at work, but at other times, I am then an advocate for tenotomy, which then in all respects appears rational. The better position of the eyes, which is obtained by the operation, will, since a greater tension of the interni is represented, exercise the same effect on the range of relative accommodation as did the original condition of the convergence, which was not only disfiguring, but which threatened the functions of the organ for continuous work." (Arch. 8, ab. ii., s. 321, note.)\*

Now the conditions in the two cases taken by Von Graefe, namely, squinting and non-squinting eyes, are not the same, and we have no right to assume that if the same principle be applied to both it will in both be followed by the same results. The difference in the conditions taken will, perhaps, be made clearer by reference to Fig. 2 (on next page), in which diagram *a* represents a pair of non-squinting eyes, and diagram *b* a case of well-marked strabismus in the left eye. The other conditions we will suppose to be the same as those previously taken. It will be remembered that in the first diagram, representing non-squinting eyes, binocular vision already existed before the operation, but that immediately after it there was a certain amount of divergence of the optical axes of the eye operated upon relative to the object viewed, which necessitated, in order that binocular vision might be reinstated, a certain amount of tension on the interni over and above what they used before the operation. But in the second diagram (Fig. 2, *b*), representing squinting eyes, if we cut the left internus so that the optic axis of this eye intersects with that of the right at *o*, and we thus obtain binocular vision, we have obtained it, not as in the former case, from a state of divergence relative to the object viewed, but from a state of convergence; so it will be seen that the conditions are at the outset very different. But in order to understand the question fully it will be

\* The italics are my own.



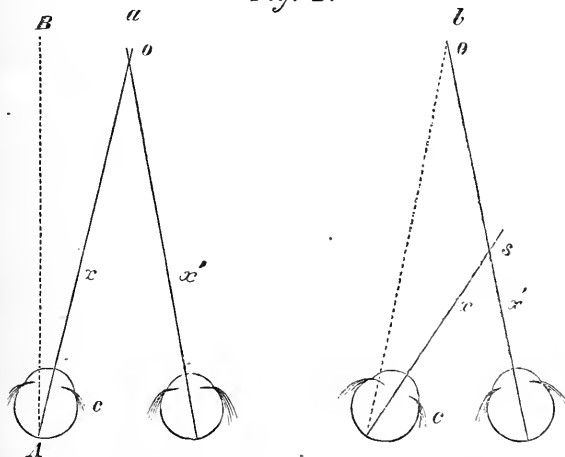
necessary to recur briefly to the principle or law upon which the assertion is founded—"That after a tenotomy a greater tension of the interni is represented, with the same effect on the relative accommodation."

This depends upon a law propounded by Von Graefe some years ago, that the effect of a tenotomy is in exact relation to the amount of displacement of the insertion of the muscle. That is to say, a convergent strabismus of three lines will be removed by setting back the insertion of the muscle three lines, &c. &c. This law is founded on mechanical principles, and is perhaps as correct as the application of any mechanical formula to the human organism can be, where the conditions in no two cases are

ever alike, and where they are constantly varying in the same individual case.

In order to explain this theory it was assumed that the amount of labor imposed upon the interni increased *pari passu* with the displacement backward of the insertion of the muscle, so that, although the convergence is lessened by the operation, the tension on the interni demanded to maintain this convergence is as great or even greater than before the operation. Admitting even that this is *per se* true, we must not forget that in estimating the power of a muscle which has a direct antagonist we must also take into consideration the force of this antagonist, and bear in mind that if the conditions under which one performs its functions

Fig. 2.



are altered, those of the other are changed also. It must be remembered, too, that in squinting eyes, just as in others, there is a certain amount of tension on the interni of the eye which turns in, which is counterbalanced by a certain amount of tension of the externus. Now the effective power of the externi increases with the amount of the convergence, and it must follow that the externus of a squinting eye, other things being equal, is in a better position to lay out whatever power it may possess, than in the case where there is a normal intersection of the optic axes. So it may happen that although the tension demanded of the interni after it has been set back would naturally be the same or even greater than before the operation, yet the ability to op-

pose this tension on the part of the externi is not as great as it was before, from the comparatively disadvantageous position under which their effective force is applied. That is to say (referring to the diagram Fig. 2, b), it requires a greater effort for the externi to counterbalance a given amount of tension under a correct position of the axes,  $x$  intersecting with its fellow at  $o$ , than it previously did under an abnormal degree of convergence, when  $x$  intersected with its fellow at  $s$ .

Now, if from any cause the externi are idiopathically weak, then their inability to resist the tension of the interni when accommodation is going on may be so great that a proper intersection of the visual lines can only be maintained after the ope-

ration, in case the opposing tension of the interni is reduced or even entirely relaxed. If this is true, then we ought to expect, according to the law, that if the tension on the interni is reduced the relative accommodation will not be, as Graefe asserts, displaced towards the near point, but be removed from it. And as a proof that precisely this may take place, and, as I believe, not unfrequently does where binocular vision is obtained, I would beg leave to refer to the following case, recently under the care of Dr. Agnew and myself.

About the first of last May, a young lady, 19 years of age, visited us on account of strabismus, with which she had been affected from early childhood. The squint, amounting to about  $3\frac{1}{2}$  lines, was perfectly concomitant in its character, as either eye was used indiscriminately, though the patient could always tell, if her attention was called to it, which eye she was for the moment employing. The total hypermetropia under atropine amounted to 1-36, vision being, with suitable glasses, a little less than one. But though there was this amount of vision in either eye, no binocular vision, in any proper sense of the term, could be called forth, though many attempts to produce it were made with prisms, colored glass, Javal's mirror and the stereoscope. The accommodation was normal, as was also the excursion of the eyes, independent of the existing squint. As there was not the slightest contra-indication, and as the cosmetic effect was the only consideration which weighed at all with the patient, the rectus internus of the right eye was divided. As the necessary effect was not obtained by this operation, the other eye was operated upon six weeks later. I will add that, on both these occasions, the tendon was thoroughly separated from the sclera. About the first of October the patient again returned. The effect which had been gained by the last operation had entirely passed away, there remaining about a line of convergence for distant objects and something more for the near. Another attempt was made to see whether binocular vision could not be called forth, but without success. The patient seemed to have, to a marked degree, what is called in text-books the "horror of binocular vision." As diplopia would not in all probability be caused, even if a slight divergence should be produced, it was determined to run the risk of a third operation, which was consequently performed.

The effect of this operation, after the wound had healed, was not as great as had

been feared, only a very trifling degree of divergence being produced, which soon passed away for distant objects, while there still remained a perceptible convergence for the near. I found, however, that there was now an attempt on the patient's part at binocular vision; that once or twice while looking at distant objects she had seen them double. I then gave her Javal's mirror, with which she practised faithfully for two months, at the end of which time she was able to see, as a constant thing, the three wafers in a vertical line, and was perfectly aware when she was using binocular and when monocular vision. She then informed me that latterly, since she had been conscious of using both eyes at a time, she did not see as distinctly as she formerly did; that she could not read at all when using both eyes, and that even in the street everything was indistinct, and that she frequently had to shut her eyes, and on opening them again to use only one. When she did this, vision became distinct at once. This led me to make another examination as to the amount of vision and the state of the accommodation. I found that when using both eyes at once vision was only 1-5; but with either eye singly it amounted to nearly 1. If, however,  $+1-36$  (the amount of the total II) was given to the patient, then binocular vision fully equalled, and I thought a little surpassed, the monocular, rising from 1-5 to nearly 1. So, too, in reading it was found that  $+1-10$  was the weakest glass through which there was easy and rapid binocular vision at 14 inches. (This convex 1-10 just represented the total II, 1-36, and the distance of the object seen, 14 inches.) Each eye singly, however, could read correctly at 5 inches without the aid of any glass, though only when its fellow deviated inward, the amount of this deviation decreasing with the strength of glass used, till it entirely ceased under  $+1-10$ .

It will be seen from the above that under binocular vision, and what may be certainly termed "a better condition of the optical axes," not only was the relative accommodation not displaced toward the absolute near point, nor did it remain as it was before the operation, but was removed from it, and that too, to such a degree as to be annihilated, no accommodation at all remaining for any given degree of convergence from the negative far point (1ft. 1-36) to the nearest point of binocular vision at which the eyes were still accommodated for convergent rays.

But it may be said that the operations

themselves had in some way so destroyed the relationship between the accommodation and the convergence that the former could not be brought into play. Admitting that this is just what did take place, it does not follow that this result is due simply to operative interference, for precisely the same thing may take place even when no operation has been performed; for Schweigger, in his remarkable monograph on strabismus, gives a minute report of a case of squint of four lines, in which binocular vision was obtained by systematic exercise with prisms. In this case, as in the one just reported, the total hypermetropia at once became manifest as soon as binocular vision was obtained, and the field of accommodation was so far removed that even with a convergence to eight inches the eyes still remained accommodated for convergent rays. (Zehender, Jan.-Feb., 1867, p. 8.)

In summing up the remarkable points of this case Schweigger mentions, as two of its individual peculiarities, that under the influence of binocular single vision the previously existing latent hypermetropia became manifest, and that the relative accommodation was displaced. I cannot think that these are by any means individual peculiarities of this case, as I have myself not unfrequently seen the latent hypermetropia become manifest after the operation, but have also occasionally seen the displacement of the relative accommodation, and believe that we should see it oftener if we examined carefully for it *immediately* after the operation; but the fact is, it is a much rarer thing to obtain real binocular single vision in a case of marked strabismus than we should be led to suppose from the books. I cannot think that results as remarkable as those mentioned in Schweigger's case and the one just described can be the result of chance, but believe that they are due to the common law which governs the connection between convergence and accommodation.

It seems to me that these two cases offer a beautiful example of the law sought to be established in my former paper, that for every increased tension of the ciliary muscle there is a corresponding and contemporaneous tension imparted to the interni. For, provided that accommodative efforts ceased, and the ciliary muscle consequently entirely relaxed, the externi, stimulated by the instinctive desire for binocular vision, had force enough to obtain the proper position of the optical axes, but not enough to *maintain* it, under the action of the cili-

ary muscle; for the slightest attempt to accommodate the eye, even for parallel rays (It. being only 1-36), at once destroyed binocular vision, producing convergent strabismus. This certainly could not have been the case had the tension of the ciliary muscle been independent of—that is to say, capable of being disassociated from—the interni. And I believe in all cases where binocular vision has been obtained from a condition of marked strabismus, that the reason why it is permanently maintained is not because the tension of the ciliary muscle is disassociated from that of the interni, but because the tension, imparted to them under accommodative efforts which would turn the eye in, is counterbalanced by the externi, their natural antagonists, which keep the eyes straight. Now the desire for binocular vision and the power of the externi to fulfil this desire, vary exceedingly in different individuals, which accounts for the ease or difficulty with which, other things being equal, they obtain and maintain binocular vision, and neutralize any effect which the operation may have had on the relative accommodation.

There are very many points in this connection which I would gladly dwell upon, did not the limits of these remarks and a proper regard for your patience forbid.

The particular point of practical importance to which I wished to call your attention, and to arrive at which I have taken what may appear to you a needlessly long route, is this. *That where we have obtained binocular vision from a state of squint, we cannot tell what glasses may be necessary for its easy maintenance, even when we know the exact state of the refraction and the amount of monocular accommodation before the operation.* Take the case in question. Here there was only a total hypermetropia of 1-36, with a monocular accommodation of 1-4, and it might surely be supposed that binocular vision might, with so slight an error in refraction and such a range of accommodation, be maintained without any glass at all, or at the most with a correction of the total hypermetropia. But it not only required that this should be neutralized, but a very strong glass in addition, a convex 1-10 being the weakest glass which made binocular reading possible at 14 inches, which is over three times the amount of the total hypermetropia. So, too, in Schweigger's case, where the glass required for 8 inches was more than twice the total II.

May not the above fact explain the reason why convergent squint is so apt to recur

after an operation, even in emmetropic eyes, and why also we find it so difficult to obtain binocular vision in such eyes, especially for near work? And ought not such cases to point out the necessity for ascertaining at once what effect the operation has had on the relative accommodation? And if the effect has been to diminish and displace it outward, the deficiency should at once be supplied by the proper convex glasses, which should be gradually reduced in strength as the patient learns to associate a larger amount of accommodation with a smaller degree of convergence than he has been in the habit of doing; that is to say, till he learns, for the sake of binocular vision, to oppose the tension on the interni by a counterbalancing effort on the part of the externi.

The best result which can be obtained after a tenotomy is, of course, binocular single vision, and this result should always at least be aimed at, even though there be a large amount of amblyopia in the squinting eye; for, by a correct intersection of the visual lines, the combined field of vision of the two eyes is increased in size, for the images formed upon the retina of the amblyopic eye, though not intense enough to produce real binocular single vision, are yet quite enough so to give the patient perception of objects situated laterally, and thus free him, to a considerable extent, from the necessity of that continual turning of the head common to those who have only monocular vision. It is indeed asserted that even in its abnormal position the squinting eye often renders important aid, not only in lateral qualitative perceptions, but even in increasing the intensity of the impressions of the fixing eye. (Graefe.)

There is a great discrepancy among authorities as to the frequency in which binocular vision is obtained after tenotomy, Graefe and others putting the percentage as high as fifty in the hundred in its favor, while Stellwag boldly asserts that binocular single vision is scarcely ever, if ever at all, obtained.

It is manifest that both these statements are extreme, and that if Graefe's statistics are, as Stellwag claims, made up on entirely untrustworthy data, his own are deduced from results given by tests which are entirely too severe. I allude to the so-called falling test of Hering. It is certainly anything but fair to expect that a person who has been accustomed, perhaps all his life, to judge of distances with one eye with the assistance of surrounding objects, should, when these are excluded, be

able, even when using two eyes, to obtain at once, after an operation, as keen a perception of perspective as those who have always possessed binocular vision.

Without at present entering further into this subject, I feel convinced that we often obtain a fair, sometimes even a very large amount of binocular single vision—quite as much and sometimes more than is to be found among those whose optical axes have always intersected in a normal manner, but yet where, for some reason, one eye was amblyopic, as among those, for example, who have a large discrepancy in the refraction of the two eyes. For in these cases not only does the most ametropic eye always extend the field of vision, but often aids materially, even when the discrepancy is of a considerable degree, in the patient's estimation of perspective. This being the case, we should always endeavor by every means in our power, therapeutical as well as surgical, to obtain for the squinting eye as large a share in the common act of vision as possible, and should never be satisfied, as many are, with simply obtaining a good cosmetic result.

We can all of us call to mind numerous cases in our own and in our colleagues' practices where the intersection of the visual lines appeared perfect and where there was acute vision in both eyes, but yet where there was no single binocular vision; and I fear that most of us have been in the habit, after a few or perhaps without any trials with prisms, &c., of sending such patients away, quite as much elated by our own prowess in doing a tenotomy as the patient is by an improved personal appearance, and each as indifferent as the other whether vision is performed with two eyes or one.

The remarkable manner in which some patients will regain and maintain binocular vision, even after this has been lost for years, is too well proved by authenticated cases to need much comment. To show, however, that it may be often brought about by simple therapeutical means, and to illustrate some further points, I beg leave to cite the following case.

Miss L., some five years ago, had been operated upon for what she characterized as a "fearful squint." There had been two operations on the right and one on the left eye. The deformity seems to have been entirely removed, the optic axes apparently intersecting at the object viewed. The patient simply complains now of asthenopia. Vision is 1 in both eyes, though there is no binocular single vision. After a good

many trials with prisms, Javal's mirror and the stereoscope, the patient was finally brought to have double vision, the images being invariably homonymous, and separated about  $10^{\circ}$  (as measured by prisms) in twelve inches. Paralysis of the accommodation showed hypermetropia = 1.9, though the patient had previously been wearing  $+1.36$ . This would account for the asthenopia. After the atropine had passed off I ordered  $+1.18$  for the distance and  $+1.12$  for the near, and she was to wear the glasses as constantly as possible. Shortly after putting on the glasses the patient came back to me complaining that the pain was greater with the convex 1.18 and 1.12 than it had been with the 1.36. She wished to give up the glasses as they were "too strong for her;" but I assured her that the pain which she experienced was not because her glasses were too strong, but because they were too weak. I then told her to wear convex 1.12 continuously. After a little while she again returned, saying that the pain had been intense and constant, and that she could not wear such strong glasses. Thinking that the patient might have that intolerance of strong glasses which some hypermetropes of a high degree often show, I determined to reduce their strength. I found now, however, on examination, that the patient had easy and perfect binocular vision, and that a prism base upward gave vertical images throughout the range of accommodation, whereas in my former examination the images were homonymous,  $10^{\circ}$  in 12 inches. At the distance, however, the images were at times slightly homonymous, and the actual adductive power still preponderated greatly over the abductive, all through the range of accommodation. Thinking that the attempt to maintain binocular vision, and the consequent strain on the externi, was what had occasioned the pain, by giving rise to muscular asthenopia of these muscles, I encouraged the patient to continue with the glasses. Three months later the pain had almost ceased, while the condition of the muscles was as follows:—At 20 feet, with no positive glass, but with the colored slide there was an insufficiency of the *externi* equal to a prism of  $12^{\circ}$ . If  $+1.18$  was added the insufficiency sank to  $3^{\circ}$ ; if  $+1.12$ , then the images are exactly vertical and remain so throughout the range of A. The adduction at 20 feet (with the convex glasses) is  $5^{\circ}$ , while the abduction amounts to  $7^{\circ}$ . At 12 inches the adduction is only equal to  $8^{\circ}$ , while the abduction amounts to  $15^{\circ}$ —the preponderance of

power now lying two to one with the *externi*, which is exactly the reverse of what it should be in the normal eye. Thus in less than six months, by simply using suitable glasses, binocular single vision was obtained throughout the range of accommodation, and the patient, from having an insufficiency of abductive force of  $10^{\circ}$  for 12 inches, obtained a positive abductive power of  $15^{\circ}$  for the same distance—a clear gain in the power of the externi of  $25^{\circ}$ , as measured by prisms. This gain is no doubt due to the fact that as the ciliary muscle relaxed under the glasses, the tension on the interni which had always been associated with it was also gradually relaxed, thus *pari passu* increasing the power of the externi, even after binocular single vision had been regained.

So great a gain as this in the power of the externi would lead us to fear that the excess of power, at first apparent in the interni, was not due to their intrinsic strength, but rather to the reflected or associated force from the ciliary muscle under the excessive tension imposed upon it in order to overcome the error in refraction.

We cannot but fear that, where the abductive force for the greater part of the range of accommodation is nearly twice as great as the adductive, the original and intrinsic power of the muscles had been weakened by the operations; so much so, indeed, that we may be justified in fearing that what was originally marked convergent strabismus may, after the operations and with glasses sufficiently strong to relieve the asthenopia, become insufficiency of the interni, or even pass into actual divergent squint.

And this leads me to a practical point upon which I wish to insist with some emphasis, and that is that we are prone, in that condition in which strabismus is most common, hypermetropia, to operate too often and at too short intervals.

As a general thing, the most careful of us are satisfied with determining the amount of deviation, the state of refraction, amount of vision and accommodation; that is, we make a careful examination of the eye before beginning with the operations, but this once made we proceed in our attempts to remove by surgical means the deformity; that is, we deliberately attack the effect without paying much attention to the cause of the squint. The effect removed, we then attack the cause by taking into consideration the error in refraction, and we prescribe glasses after one, two or three operations, as the case may be, not with the

design that they may be of any independent value in themselves in removing or lessening the squint, for this has been done by the operations, but simply to prevent a relapse from that condition which has been obtained perhaps from repeated tenotomies.

Most practitioners avoid putting on glasses till the wound of the divided tendon is entirely healed, and then, surprised at the little effect gained, resort to another operation within a period of three or four weeks, or perhaps even follow it with a third. I have myself been in the habit of prescribing glasses almost immediately after the operation: but I have not been aware till lately how important it was not to found the indication for them upon even an exact knowledge of the state of refraction gained before the operation, even by the aid of atropine, but upon data furnished *after* the operation from a careful study of the state of the relative accommodation both for the far and near.

I have seen just such results as those mentioned in the preceding case follow, even where no binocular vision existed, and I dare say there are many more which will ultimately go the same way, the sight of which I shall be spared. Patients who have undergone the various vicissitudes from convergent to divergent squint, have usually a disinclination to revisit the author of their woes, but there is none of us who does not from time to time get painful examples of each other's failings. The popular fear so often expressed that the eye "may go the other way," though gradually becoming less on account of improved methods of operating, is by no means extinct, either in theory or point of fact. And although we shall probably never be able to measure exactly the effect of a tenotomy, we can at least do everything in our power to come as near to it as possible, and thus avoid disagreeable consequences, and one of the best ways of doing this is, I believe, to treat more and operate less. To this effect I would suggest the propriety, in all cases of convergent squint in hypermetropic eyes, of reducing as far as possible the error of refraction before any operative interference is had at all, for the purpose of removing from the interni, as much as possible, the abnormal tension associated with excessive action of the ciliary muscle. By this means I am certain, from my past experience, that we should in the majority of cases reduce the angle of deviation, sometimes even to a great degree, and thus avoid to a considerable extent those numerous "settings-back" of the muscles so detrimental to the

easy and lasting performance of their natural functions.

With this brief outline of the manner in which relative accommodation may behave in actual strabismus, I would call your attention for a few moments to a kindred condition—insufficiency of the externi, which is often provocative of homonymous diplopia and intermittent strabismus. Strictly speaking, weakness of the externi recti where there is no anomaly of refraction is exceedingly rare, while in myopia of the highest degree it is not of infrequent occurrence, and in hypermetropia want of proper adductive power is rather the rule than the exception.

We have seen, in the earlier part of these remarks, that if the tension upon the interni was increased, the relative accommodation was displaced toward the near point, and it would naturally be supposed that if the tension on the interni was lessened the relative A, instead of being displaced inward, would be removed outward. Now if the externi are weak, it of course follows that it will require less tension on the interni to make the visual lines intersect at a given convergence than if they offered their usual resistance; and if this tension is lessened, it ought to follow that the relative accommodation will be removed further from the near point than under the normal equilibrium of the muscles. But in all cases of marked insufficiency of the externi which I have examined in emmetropic eyes, the field of accommodation was displaced toward the near point, not, as we should expect, removed from it.

These patients have to hold their book near to the eye, some exceedingly so, and the explanation might be sought in the fact that the externi are not strong enough to resist the interni, and thus obtain a proper crossing of the visual lines at even a moderate distance from the eye. But it must be remembered that these very patients have the power of carrying out the visual lines to parallel axes, as is shown from the fact that their diplopia is rarely if ever constant, while in some cases it is never, as it were, spontaneous, but can only be called forth by the colored glass. Why is it, then, that these patients, if they can overcome the interni to such a degree as to obtain parallel axes, cannot carry out the visual lines sufficiently to allow them to read at a distance greater than 14, 12, or even 8 inches, as the case may be?

The explanation of this is, I think, to be found in the action of the accommodation, or rather in the associated action of the

ciliary and the interni recti muscles. Under the tension of the ciliary muscle necessary to make reading possible, there is also a corresponding associated tension on the interni, which has the tendency to turn the eye in, and which is counterbalanced in the normal eye by the opposing tension of the externi. If now for any given degree of convergence at which the object is held, the strain put upon the externi in order to resist the interni, while accommodation is going on, is greater than they in their weakened condition can bear, they must of a necessity yield to the superior force; and the result is that the eyes are thus converged to a point nearer than the object, which has to be gradually brought nearer and nearer till a point is reached where the tension on the interni is so great that the externi, though reduced in power, can resist it. But as soon as the accommodation necessary for distinct vision for a near point is relaxed, and with it the associated tension on the interni, the externi are then able, freed from any opposing force, to carry the visual lines out till they become parallel.

Now although a high degree of convergence is necessary in these cases for close work, of course the tension on the interni is not so great for the same degree of convergence where the externi are weak, as where they are of normal strength. Thus we see that the relative accommodation may be displaced inward, even when the tension on the interni for every given degree of convergence is reduced.

In emmetropia it is evident that this displacement inward of the field of accommodation can only take place, to any marked extent, where the insufficiency of the externi is of a very high degree, because as we approach the near point the effective ability of the externi gradually increases, and it requires but little force on their part to maintain the equilibrium of muscular power at the point ordinarily selected for near work. Still that this displacement may take place will be shown by the following case, which I the more willingly cite as I can find but one other like it on record.\*

C. B., æt. 17, has complained of his eyes "being weak" for over a year, during which time he has been troubled with the common symptoms of asthenopia. He has been wearing a weak convex glass (+1.36), which has given him but slight relief. Latterly all his symptoms have increased, com-

bined with occasional double vision. While reading, the patient habitually holds his book at about 7 inches, but can, with an effort, still read at 12, but not further. The examination gave the following results. Refraction emmetropic (under atropine); V.=1; A, normal. If one eye is covered with the colored glass then homonymous images follow, separated, as measured by prisms, 30° in 20 feet. These images combine at 8 inches, and at 6 vertical diplopia is obtained by a prism, base up. If the candle is held at 8 inches and then moved to either side of the median line 4 inches, homonymous images follow, the images being always on the same plane. The diagnosis was consequently a large amount of insufficiency of the externi; there was, however, no actual strabismus.

The right internus was now divided, and six days after the operation the insufficiency had sunk from 30° to 10° for 20 feet; homonymous images were present only outside of 10 feet, and at 12 inches the candle could be carried all across the visual field without producing homonymous diplopia. The region of distinct vision for near work has been very largely increased, for whereas the patient could not read before the operation at a greater distance than 12 inches, he now reads as far as the type can be seen by the average normal eye, 3 to 4 feet. Ten days later the insufficiency had risen again from 10° to 18° for 20 feet, and it was not till the candle had approached the eye to 18 inches that the homonymous images combined. The abduction at 12" now amounted to 2°, the adduction to 18°. The left internus was now divided, and the results of the examination made three weeks after the last operation were as follows. If the colored glass was used alone over one eye there was no homonymous diplopia, even for 20 feet, nor did this occur anywhere from the distance up to the near point, even when the candle was moved laterally across the field of vision; but if the prism, base up, was added, a small degree of insufficiency (one or two degrees) of the externi was still apparent. The patient is entirely relieved of his asthenopia and diplopia, and can use his eyes to the full amount without experiencing any inconvenience.

In the above case there are two principal points to which I would particularly call your attention. (1.) That although there was no actual strabismus, both interni had to be divided to restore the muscular equilibrium. (2.) That although the patient could, with an effort, carry out his optic

\* Klinische Beobachtungen Pagenstecher. Drittes Heft, 1866, p. 96.

axes to the parallel, the relative accommodation was so displaced inward, when the eye was adjusted for near objects, that distinct vision was not possible outside of 12 inches, while near work was usually performed at 7.

To show that this displacement of the relative accommodation may take place when the insufficiency of the externi is the result of operative interference, I would call your attention to the very interesting case presented at one of the late meetings by a member of the N. Y. Ophthalmological Society. The patient was a young lad of about 12 years of age. In this case there was a total hypermetropia of 1-8, with vision = 1. There was an insufficiency of the interni amounting to 8° for the far, and 14° for the near. In order to relieve this, both externi were divided at the same sitting. The result of this double tenotomy was homonymous diplopia of so great a degree that single vision was only obtained when the object was brought within 6 inches of the eye. This diplopia gradually became less, till at the end of three weeks it only occasionally manifested itself. The patient's total hypermetropia was neutralized,  $\pm$  1-8 being given. With these glasses vision was 1, and there was no diplopia. The error in refraction having been completely neutralized, the eye might be considered as an emmetropic eye, in so far that, when in a state of rest, it was accommodated for parallel rays, and consequently had to call forth only that amount of accommodation for a given convergence that a normal eye would; and yet the relative accommodation was very different from that of an emmetropic eye, it being displaced so far inward that the patient could not read outside of 14 inches, while a boy of his age, with vision 1, ought to be able to read common print at 3 or 4 feet.

It would be advanced at once in such a case that the externi had been so weakened by the operations that they had not strength enough to carry out the visual lines, so as to make them intersect at a greater distance than 14 inches. But why have not they the requisite force for this if they have sufficient to produce parallel axes, which require a great deal more strength? The only answer to this, that I can see, is the one already given, with a repetition of which I will not weary you.

A further examination showed that the actual abductive power remaining after the operations was, expressed in prisms, only 3°, which is a trifle less than one-quarter

what it should be, while the adduction was only 6°, which is also about one-quarter of what it is in the normal eye. The relative far point for reading is at 14 inches, while the near point is at 6, making the relative accommodation about 1-12, which is certainly one-half, if not one-third what it should be. Thus we find, in a high degree of hypermetropia, a condition brought about which not unfrequently occurs in exaggerated forms of myopia, where an insufficiency of the externi coexists with that of the interni, together with a reduction of accommodative force.

This reduction in the power of the muscles presiding over the accommodation would lead, we might fear, to some form of asthenopia, either from the ciliary, interni or externi muscles. The fact, however, that notwithstanding the great reduction in force, the proportion between the abduction and adduction remains nearly normal, is very favorable, for if the actual power of both interni and externi increases, the muscular equilibrium between them will probably be maintained.

Although we very rarely find actual insufficiency or even a reduction of abductive force in emmetropic eyes, in hypermetropia, on the contrary, it is so common as to be in fact the rule. This led Giraud Teulon to express the belief that there is the same inherent tendency in hypermetropic eyes toward weak externi that there is in myopic eyes toward weak interni. Now wherever there is a tendency so strong as to amount almost to a law there must be some cause for it, and the chief causes why the abductive force is abnormally low in hypermetropic eyes are, I believe, two. (1.) That the associated tension of the ciliary muscle in overcoming the error in refraction gives an increased amount of power to the interni. (2.) That the effective force of the externi is *per se* also lessened by the anatomical construction of the hypermetropic eye. In the normal eye, as you are well aware, the externus is inserted further back than the internus, which, in itself, other things being equal, gives an advantage to the interni, and this advantage is disproportionately increased in the hypermetropia, because from the shortened antero-posterior axis the centre of rotation, though relatively more posterior, is more on a plane with the insertion of the muscle, which for this reason has less leverage than in the normal eye.

This want of abductive force may be either actual or apparent. If actual, it de-



depends on some want of power in the muscles themselves, and may be occasioned in three principal ways.

(1.) Through an abnormal preponderance both of volume and force of the recti interni over the externi, which may in themselves be below the normal standard. This condition is generally inherited from parents who have themselves squinted, and in whom, in consequence, the interni have become from constant exercise unduly developed, while the externi, from want of use and from being constantly on the stretch, have lost both volume and vigor.

(2.) From faulty insertion of the muscles, on account of which the interni have the preponderance of power.

(3.) From a state of debility, either temporary or permanent, which has been developed by a constant straining on the part of the externi in order to maintain binocular vision, while the eye is calling forth its accommodation in order to neutralize the error in refraction.

This latter depends on the intimate relation which exists between convergence and accommodation, and which has been more fully dwelt upon in the earlier part of these remarks.

It is evident that in these cases where there is inherent weakness, be it natural or acquired, in the externi, the correction of the error of refraction, though it may give relief, will not remove the whole cause of the trouble; and this is one of the reasons why some hypermetropes, even when provided with suitable convex glasses, still continue to suffer from asthenopia.

Instead, however, of being actual, this insufficiency of abductive force may be only apparent. When it is so, it is due entirely to the efforts of the accommodation to overcome the error in refraction, and disappears as soon as this is corrected by glasses. This will be better explained by an example.

A patient has  $Hm. = 1.16$ ,  $Ht.$ , as estimated by the ophthalmoscope, between 1.10 and 1.12. If the condition of the muscles is examined at twelve inches from the eye without the hypermetropia being neutralized by glasses, then the amount of adduction is found to equal a prism of  $20^\circ$ , while the abduction amounts to only  $4^\circ$ . But if the error of refraction is corrected, then the amount of adduction rises to  $18^\circ$ , while the abduction in this particular case undergoes but little change. It is, as a rule, however, slightly decreased.

This shows that the disproportionately low force of abduction is due in this and

similar cases not to any idiopathic weakness of the muscles themselves, but to the fact that the nervous impulse, by which the ciliary muscle is able to overcome the error of refraction, is propagated to the interni, which thus throws the balance of power in their favor, and gives them, as long as accommodative efforts are going on, the preponderance of force. From which it follows that the tension on the interni can only be relaxed in these cases by relaxing that of the ciliary muscle. This, as a rule, the unaided eye refuses to do, for the reason that distinct vision would have to be given up. When, however, the hypermetropia is completely neutralized, the undue tension on the ciliary muscle is removed, and, as a consequence, that on the interni is also. The abnormal resistance which these latter offer to the action of the interni is thus removed, and these muscles are then left at liberty to bring forth their power in order to maintain binocular single vision, as soon as this is threatened by placing prisms before the eyes with the angle outward.

It often happens that the effect of glasses in increasing, at least to its fullest extent, the abductive force in hypermetropic eyes, is not always obtained at once, even in cases where the externi are not idiopathically weak. It often takes some little time for the eyes to give up the exercise of a certain amount of tension, the employment of which habit has rendered intuitive.

On account of this low degree of abductive power an examination should be made (after the hypermetropia has been neutralized as far as possible) into the condition of the muscles, and if a marked degree of insufficiency of abduction is shown, a tenotomy is, in my opinion, not only justifiable, but necessary, notwithstanding the fact that no actual strabismus exists, and the weight of Donders's opinion against it. The cases requiring operative interference will, of course, be comparatively rare, and the tenotomy must be done, not with the idea of dispensing with the proper correcting glasses, which was Donders's chief objection to it, but with the aim of restoring a normal equilibrium to the muscles.

The next subject which I shall call your attention to, and which I have now only time to briefly touch upon, is the action of the relative accommodation in divergent squint and weakness of the interni, and, as it is in myopic eyes that these affections most frequently occur, my remarks will, in a great measure, be restricted to that condition.

In myopia the relative accommodation is displaced toward the near point, which is exactly the reverse of what it is in hypermetropia, or, what amounts to the same thing, the proportion of accommodative force actually used is always greater in myopia than in emmetropia; consequently the tension on the ciliary muscle is always less, while that on the interni is, from the shape of the eye, always greater for a given convergence than in the normal organ. From this it results that the abductive force is, as a rule, disproportionately great; and, as you are well aware, the first indication in the treatment of insufficiency of the interni is to restore this want of adductive power, by lessening the load which the myopic formation necessarily imposes upon them. The different methods by which this is accomplished, such as tenotomy, the use of prisms and the carrying out the far point by concave glasses, are too familiar to you to need or even to permit any extended comment from me. Still I cannot help thinking that, in practice at least, the important service which suitable glasses may be made to render in preventing the tendency to deviation outward shown by myopic eyes has been much underrated; and in this connection I should like to say a word or two in regard to the effect which concave glasses have on the relative accommodation, through which, I think, their utility in a great measure depends.

As a tendency toward an abnormally great convergence is the chief characteristic of hypermetropic eyes, it must naturally follow that the nearer we reduce a pair of eyes to this condition the greater will be the tendency toward increased convergence of the optical axes; consequently if we have myopic eyes with a tendency toward divergence of the optical axes, we must reduce them to the conditions offered by hypermetropia. This is done in two ways. (1.) By altering the refractive and accommodative condition. (2.) By changing the anatomical ones.

If by means of concave glasses we neutralize myopic eyes, we have, as far as the refraction is concerned, reduced them to a condition of emmetropia, and if the accommodation was good it would be fair to suppose that such eyes would be equal also in muscular force. But this, as Donders proved long ago, is not the case, for in carrying out the far point we have also displaced the relative accommodation outward, and thus in reducing it by glasses to an emmetropic eye for the distance we have changed it for the near into a hypermetropic

eye, as far as the accommodation is concerned; that is to say, an increased degree of tension of the ciliary muscle is demanded with small degrees of convergence, which is just the reverse of what it was before the myopia was neutralized. Now allowing that the increased tension of the ciliary muscle in overcoming the glasses is propagated to the interni, in carrying out the far point we have not only decreased the amount of tension demanded of them by lessening the convergence, but we have also increased their effective ability for that convergence.

This will be made clearer by an example. Suppose a myope of 1.7 habitually reads at his far point, that is, at 7 inches. Under these conditions he is using a considerable amount of the tension of the interni with the minimum amount of accommodation, or even with no accommodation at all (Donders). If now we carry out his far point by neutralizing completely, or partially, his myopia, but so that he can still read with ease at 15 or 16 inches (his near point being no longer at 3, but at about 6), we have by thus reducing the convergence reduced also the amount of tension on the interni to a very large degree. But beside this, by compelling the ciliary muscle, which was formerly idle, to exert its tension in overcoming the glasses, we have gained that amount of force which through its action is always transmitted to the interni. That this is true is proved from the clinical fact that the average adductive force of myopes, who from an early age have worn glasses sufficient to neutralize their myopia, is much greater at their point of near work, and the tendency to deviate outward much less than among those where the error in refraction has not been corrected. For this reason, when in myopia there is any insufficiency in the abductive power, I always make it a rule, whether a tenotomy has been performed or not, to neutralize the myopia, or to come as near this as circumstances, such as the state of the accommodation, amount of vision, and age of patient will permit.

In regard to the second method of relieving the overburdened interni, that by tenotomy, I should have something to say, both as to the indication for and performance of the operation, did not want of time compel me to postpone it till some future occasion.

In conclusion, I would say that the object of these I fear already too extended remarks has been to call attention to a part of the subject of strabismus which has not yet received the attention which I think it deserves. And it is in this connection that I

would suggest that we have hitherto in our treatment of squint paid too much attention to the condition of the recti interni and refraction, and not enough to that of the externi and accommodation.

## TWO CASES OF DISLOCATION OF THE CLAVICLE.

By ALBION COBB, M.D., Webb's Mills, Me.

As dislocation of the clavicle seems to be a rather unusual occurrence, I offer the history of two cases, being the only ones which have come under my observation.

On the 24th day of July last, Mr. J. F. H., of Casco, Me., was riding upon a wagon loaded with 23 cwt. of heavy merchandise, when, owing to an obstruction in the road, he was thrown from his seat and fell, face downward, directly in front of one of the forward wheels, which passed over him squarely from shoulder to shoulder. I was sent for to visit him, and found the sternal end of his left clavicle dislocated forwards, and forming a prominent tumor on the front of the sternum. A neighboring practitioner had been called before me, and had attempted to reduce the dislocation, but without success. Seating the patient in a common "office chair," I brought him fully under the influence of sulphuric ether. I then placed my knee against his spine, and, taking a shoulder in each hand, drew them steadily and forcibly backwards, while an assistant made pressure over the seat of the luxation. The bone slipped into its place. The patient was insensible for scarcely a minute in all, and awoke from a pleasant dream. The bone showed no disposition to become re-luxated, but finding, from a glance at "Hamilton on Dislocations," which I had taken the precaution to bring with me, that all the cases of this dislocation which had fallen under the observation of that skilful surgeon had either not been reduced or had escaped after reduction, I made "assurance doubly sure" by treating it like a fractured clavicle, with the addition of a compress over the end of the bone. It has kept its place, in the most satisfactory manner, up to the present time.

The other case came under my observation while a medical officer in the Army of the Potomac, some time during the winter of 1862-3. As the wagoners of the 2d Brigade, 1st Division, 3d Army Corps, were working off the extra exhilaration derived from an overdose of sutler's whiskey, by a pleasant game of fisticuffs, one

of them received a severe upward blow upon the front of his left shoulder, which at once placed him *hors du combat*. As none of his companions were in a condition to know whether he was hurt or only drunk, little attention was paid to him that night, but as he was worse the next morning, I was requested to see him. I found the scapular end of his left clavicle dislocated upward and lying upon the acromion process, which it overlapped an inch or more. Drawing the shoulders backwards, and pressing with my thumb upon the dislocated end of the bone, it was quickly reduced, and, on withdrawing my hand, as quickly became dislocated again. This it persisted in doing for a day or two, in spite of bandages, compresses and adhesive straps, much to my annoyance and vexation, and the pain and discomfort of the patient. At length, however, by some complicated harness, which I cannot now describe, I succeeded in tying it down to its place, and the patient in due time recovered with a good shoulder.

## Reports of Medical Societies.

VERMONT MEDICAL SOCIETY. REPORTED BY THE SECRETARY, L. C. BUTLER, M.D.

THE fifty-fifth annual meeting of this Society was held at Montpelier, October 20th and 21st. Dr. J. S. Richmond, of Woodstock, President, occupied the chair. The session was opened with prayer by Rev. Mr. Underwood, of Hardwick. The proceedings of the annual and semi-annual meetings were read by the Secretary.

Dr. J. N. Stiles, of Windsor, presented a circular from a committee of the American Medical Association, inviting contributions of medical works from this Society, and from individuals, to a National Medical Library now being established at Washington, D. C. The Secretary was instructed to forward such publications as may be in his possession.

Dr. L. C. Butler, of Essex, from a committee appointed at the last annual meeting of the Society, read a paper on "the medical, social and civil aspects of intoxication by alcohol," in which he urged the point that since the Legislature of the State had by a stringent law prohibited the use of intoxicating liquors for any other purpose than "for medicinal, mechanical, and manufacturing purposes," it ought to protect those who require those liquors as medicines from

the abominable adulterations that make up the great mass of what is now sold as such under the law. This it might do, he said, by appointing a State Assayer of Liquors, and making it his duty to analyze all liquors offered for sale by town agents, and to condemn to confiscation every cask that is not found chemically pure. In its details such a law should fix the standard of purity, and require the officials concerned in procuring liquors for medicinal purposes to forward to the State Assayer samples of each kind to be offered for sale, and no liquor should be allowed to be sold by town agents without the certificate of the Assayer that they are absolutely free from all poisonous drugs and adulterations. Dr. Butler further suggested that all regular druggists and apothecaries in the State ought to be permitted to sell liquors for the purposes allowed by the law of the State, subject to the same restrictions and penalties as the town agents. They are allowed to sell all other medicinal agents and even "poisons," properly labelled, why not alcohol as well, or any of its congeners? The views presented by Dr. Butler met the approbation of the Society, and a committee was appointed to embody them in proper form to be presented to the Legislature, with a view to their enactment into a law, if that honorable body shall deem best.

Dr. A. T. Woodward, of Brandon, read a paper on the *Uses and Abuse of the Speculum*.

Dr. Woodward traced the history of the speculum from "the earliest practitioners of medicine" down to the present day, giving a clear statement of its proper uses and of its abuse, and coming to the conclusion that no case of uterine disease should be regarded as fully investigated, until the speculum has been used either as a principal or accessory instrument. This position he strongly fortified by quotations from various authors.

Dr. F. W. Goodall, of Greensboro', presented details of a case occurring in his practice, and of the *post-mortem* examination, in which the patient was afflicted with a complication of diseases, having gangrene of both feet, cancer of the stomach, tuberculosis, and emphysema.

The above papers, being the only ones presented before the Society, were severally referred to the committee on publication.

The delegates to the Medical Department U. V. M., made a favorable report of their attendance upon the examination of students for graduation, and commended the College to the favorable consideration of the profession.

The President's address was delivered Wednesday evening, and was directed more especially to the exposure of certain shortcomings of the profession, with suggestions as to the appropriate remedy to be applied. The address was able and interesting. A considerable portion of the sessions of the Society was spent in the verbal presentation and discussion of cases in practice, by different members.

The officers of the Society for the ensuing year are as follows:—*President*, Dr. Henry Janes, of Waterbury; *Vice President*, Dr. Abram Harding, of South Hero; *Secretary*, Dr. L. C. Butler, of Essex; *Assistant*, Dr. Chas. H. Tenney, of Hartford; *Treasurer*, Dr. J. E. Macomber, of Montpelier; *Auditor*, Dr. C. M. Chandler, of Montpelier. *Board of Councillors*, Drs. M. J. Hyde, O. F. Fassett, O. E. Ross, J. Perkins, B. F. Morgan, C. P. Frost, Kimball Russ, E. F. Upham, A. J. Hyde, C. W. Peck, J. H. Richardson, Salmon Brush, S. Putnam, F. W. Goodall, one for each county in the State. *Committee on Registration Report*, Drs. L. C. Butler, O. F. Fassett. *Delegates*—to New York Medical Society—Drs. L. C. Butler, J. S. Richmond, A. T. Woodward; to New Hampshire Medical Society—Drs. J. N. Stiles, H. R. Phelps; to Massachusetts Medical Society—Drs. C. L. Allen, A. E. Pond; to Maine Medical Association—Drs. G. B. Bullard, N. W. Braley; to Connecticut Medical Society—Drs. Chas. A. Sperry, P. D. Bradford, A. Harding; to Rhode Island Medical Society—Drs. J. H. Hamilton, C. H. Tenney; to Connecticut Valley Medical Society, Drs. E. F. Upham, A. C. Welch; to U. V. M. Medical Department—Drs. C. M. Chandler, S. Putnam, O. F. Fassett; to American Medical Association—Drs. G. W. Nichols, Henry Janes, H. R. Jones, H. D. Holton, S. W. Thayer, A. T. Woodward, A. C. Welch.

The semi-annual meeting is to be held in Burlington on the first Wednesday and Thursday of June, 1870.

Owing to the devastations of the flood which occurred but a few days previous to the session, the attendance upon this annual meeting was small. And for the same reason, probably, no delegates were present from other State societies.

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CAFFEINE IN POISONING BY MORPHIA.—Dr. Seneker injected three grains of caffeine hypodermically in ten minutes. The patient quickly recovered.—*St. Louis Medical Journal*.

# Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 9, 1869.

## ABUSE OF INSANE ASYLUMS AGAIN.

THE following is from a daily newspaper, and is probably a paragraph that is going the rounds:—

"Visitors are hereafter to be excluded from the Jacksonville, Illinois, State Insane Asylum, on humane grounds. The evils, if any, resulting from too many visitors must be less than those resulting from cruel treatment and false imprisonment of the sane, both of which are too common, notwithstanding the safeguards now established to prevent their occurrence. The exclusion of visitors would seem to be a step in the wrong direction."

Cruel treatment of the insane and false imprisonment of the sane in public asylums are accusations easy to make. But, so far as this country is concerned, we do not believe in those crimes as common occurrences. The remark about the introduction of visitors shows ignorance of the first principles of the treatment of lunatics.

In reply to an article in our issue of Oct. 14th the *Boston Post*, a few days after that date, printed a courteous paragraph which seemed to indicate that that journal had been aroused to a sense of the injury which was likely to accrue from the publication of sensational appeals such as we had advertised upon. But the *Post* of Dec. 1st has a lengthy editorial entitled "The New Social Outrage," in which it gives indications of backsliding into its former error. By way of rejoinder, we reiterate all that we said in our former article. The *Post* shares in what we believe to be a popular prejudice, so far as our public Lunatic Hospitals are concerned. As to *private* insane asylums, they should rarely be allowed to exist, particularly in large cities; and not at all save under the strictest and the constant surveillance of law officers.

But it is of little avail to try to reason the popular mind out of a *prejudice* against any institution or class of institutions. The only thing to be done to combat such erroneous impression, when we cannot af-

ford to wait for it to die out, is to meet it with all possible measures of security against the evil it dreads. Therefore, though fully believing the premises of our cotemporary to be wrong, we coincide with it in the conclusion to which it arrives, and which we reach by a different road. Says the *Post*:—

"It is time that some sort of a tribunal was established by every legislature, that shall be competent to decide a question of lunacy at the start, before which the accused may enjoy at least equal rights with those of a common felon before a magistrate's court. Shall a criminal be provided with protecting restraints which are denied a respectable and well-known citizen?"

On pages 229 and 230 of our present volume is the following quotation:—

"In the 'project of a law for regulating the legal relations of the Insane,' which was unanimously sanctioned by the 'Association of Medical Superintendents of North American Hospitals for the Insane,' we find the following section:—'Insane persons may be placed in a hospital for the insane by their legal guardians, or by their relatives or friends in case they have no guardians, but never without the certificate of one or more reputable physicians, after a personal examination made within one week of the date thereof; and this certificate to be duly acknowledged before some magistrate or judicial officer who shall certify to the genuineness of the signature, and of the respectability of the signer.'

"Under such a provision the insane may be promptly, quietly, and, with a few possible exceptions, rightfully, placed by their friends in some hospital for the insane. For the possible exceptions, we would have a provision applicable to them alone, and not, at the same time, subjecting all the rest to positive discomfort and injury. If the writ of *habeas corpus* should not be supposed to furnish sufficient relief, a commission might be appointed especially for this purpose. In the 'project of a law' just mentioned, we find the following provision:—'On a written statement being addressed by some respectable person to some high judicial officer, that a certain person then confined in a hospital for the insane is not insane, and is thus unjustly deprived of his liberty, the judge, at his discretion, shall appoint a commission of not less than three nor more than four persons, one of whom, at least, shall be a physician, and another a lawyer, who shall hear such evidence as may be

offered touching the merits of the case, and, without summoning the party to meet them, shall have a personal interview with him, so managed as to prevent him, if possible, from suspecting its objects. They shall report their proceedings to the judge, and if, in their opinion, the party is not insane, the judge shall issue an order for his discharge."

This arrangement would probably be satisfactory to the newspaper writers and the public. But, if it should not be deemed stringent enough, the two formalities, we would submit, might be yoked together, by making the first temporary and provisional, to be sanctioned or negatived by the second tribunal proposed, which tribunal should, however, sit in all cases, instead of merely in the exceptional ones alluded to. Responsible officers might be appointed, under whose supervision the preliminary detention should be effected, and whose business it should be to see that the cases were brought as speedily as possible before the "commission." Such commission, or commissions, would naturally become permanent and in constant employment; and its (or their) expenses would properly be defrayed out of the public purse.

We must repeat, here, our former quotation from the eminent writer in the *American Law Review*, to the effect that such legislation would not prevent all popular clamor now so loud and wrathful.

"That will continue as long as the wrongful imprisonment of sane persons is capable of adding to the interest of a novel, or as long as the stories of the insane are received by credulous people as unqualified truths."

One or the other of the concessions suggested, however, might put some check on the now too prevalent practice of leaving the insane at large, to harass their friends, waste their substance, or commit frightful homicides on innocent persons. We but too frequently read accounts of butcheries committed by irresponsible lunatics.

#### NOTES FROM FRENCH JOURNALS.

*Case of Gangrene of the Vagina following application of Perchloride of Iron.*—The *Bulletin Général de Thérapeutique* quotes the case from the *Gazette des Hôpitaux*. A

lady 40 years of age, of excellent constitution, and usually enjoying good health, having gone through a natural and easy labor eight months previous, had been suffering from slight metrorrhagia of three weeks' duration, when she consulted Dr. Tissier at the commencement of March, 1867. The 15th of March there suddenly occurred, without discoverable cause, a discharge of sanguinolent serum, with clots intermingled, from a litre and a half to two litres in quantity. This was attended with paleness, cold sweats, and chilling of the extremities. The pulse was imperceptible, the action of the heart feeble and slow, the voice extinct. Doctor Tissier having been called in haste, covered the abdomen with cold compresses, and introduced into the vagina without the speculum a tampon consisting of dossils of "charpie" dipped in pure perchloride of iron; and in addition other masses of the same kind of tampon soaked in an aqueous solution of the perchloride in the proportion of one part to four. At the same time he gave, at intervals of ten minutes, powders of ergot of rye consisting of 25 centigrammes each; cold beef tea; ice; and subsequently tea containing rum. In two hours the flux was arrested. The next day the more superficial layers of charpie were removed; and the remaining ones—those soaked with pure perchloride of iron—were taken away at the end of forty-eight hours, without the patient complaining of the least pain. Five days after, there was a feeling of burning in the vagina. Emollient injections brought away mucous *débris*. The seventeenth day after the plugging, a piece of mucous membrane 6 centimetres long and 2 broad was discharged. The patient had a slow convalescence.

About six weeks afterwards, the menses being pale and scanty, M. Tissier made a digital examination, and detected at a distance of four centimetres from the vulva, a very fine fibrous ring, scarcely admitting the passage of the finger. Two centimetres further there was a second ring, upon which the cervix uteri rested.

In communicating the case to the *Société de Médecine de Paris*, Dr. Tessier added that he knew of two other instances of in-

production of perchloride of iron into the vagina, with the same accident resulting. And Dr. Léon Gros, who was appointed to make a report upon the subject, concluded, from his survey of the facts, that in cases of uterine hæmorrhage, where it may be thought necessary to apply pure perchloride of iron within the vagina, certain precautions are necessary. These precautions consist in beginning by filling the *culs de sac*, by means of the speculum, with "charpie," either dry, or soaked in a solution of the perchloride; in limiting the application of the undiluted styptic of iron, to the neck of the womb; and in surrounding the latter organ with a sufficient quantity of charpie to prevent the contact of the agent with, and its caustic action upon the vaginal mucous membrane. This is the more important if the vagina be at any point bare of epithelium.

*Elective Action of Drugs.*—A writer in the *Gazette Hebdomadaire*, after eulogizing Claude Bernard's experiments on morphine of which we made a brief abstract in our issue of December 2d, goes on to say that the combined soporific and excitant action of morphine does not appear to Bernard as necessitating the supposition of two substances in the drug to be assumed as not yet isolated by chemistry, and as dividing between them this double action. He believes in the chemical unity of morphine, and explains its double influence by two periods of one and the same physiological action. Such action in different substances may vary in their respective lengths of duration and degrees of intensity, these variations constituting differences of more or less. Does not this double action—says Fonssagrives, the reviewer in the *Gazette*—depend simply upon the fact that the morphine borne on by the circulation, and following the mechanical (?) laws of that function, proceeds to touch and impress the different organs or their elements, some of which respond to the appeal, and in forms corresponding to their special impressibility, while other organs remain mute. From the silence of the latter and the varied language of the former is found the *phenomenal* phraseology which is the formula of the physiological action of a drug or a poison. In this way, and in no other, is the reviewer

able to comprehend the *elective* action of drugs. The substance is inert; it does not guide itself; it does not take this or that direction by its own choice. Carried passively, mechanically, by the blood with which absorption has mingled it, it impregnates all the organs, and brings into play their sensibility to it, or tests their impassibility. Sometimes a single organ *speaks*; but all are *interrogated*.

The *science* of medicinal action, says Fonssagrives, is at its commencement, and Claude Bernard has the signal honor of tracing its programme. But if physiology be true to its *rôle* in seeking to pierce the mysteries of the inner, molecular action of drugs, let clinical investigation, on the other hand, hold to its own, by reserving to itself the study of their external, phenomenal, and symptomatic action. The hospital bed and the laboratory will furnish the therapeutical deductions to be based on the two methods of research, neither of which can, by itself supply those deductions. The two methods will be well nigh combined in the same mind, when they shall have encountered a man who is at once a physiologist like Bernard, and a clinical observer like Trousseau. But that day, the reviewer fears, is far off.

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MR. EDITOR,—In the JOURNAL of Nov. 11, in the article "Raising the Drowned," G. W. G. says, "Have you or any of your readers," &c. "If so, can you suggest a better theory?" &c. You reply, and in that reply suggest the idea that if a body did rise when the cannon was fired, you would account for it as a coincidence. You also advance the theory that decomposition must be so far advanced that gas will be evolved sufficient to make the specific gravity less than that of water before the body can float. There can be no doubt of the truth of your theory; and in the summer we look for a body to float in about nine days after the drowning, while if one is drowned in early spring the corpse may not be found until the water is warmed by summer heat. But now for the cannon. Three years since I was a doubter like yourself, but about that date I was forced to accept the fact by witnessing a body appear "at the bidding" of the cannon about twenty hours after drowning. The fact being indisputable, a better theory than

"bursting the gall-bladder" was needed for me; and if I am not mistaken I have it in this wise. The body of an ordinary sized person will float by the aid of a gas-bag or life-preserver displacing eight pounds of water. If so, then by any force brought to bear on the body exerting that amount of lifting power, the body would come to the surface. That lifting power in the case to which I have alluded was furnished by a cannon loaded with seven pounds of blasting powder and wadded with damp oakum, driven home with a heavy sledge. The pressure of the atmosphere at the distance of two hundred yards from the gun was such as to draw stout panes of glass from windows, and the body, which lay in ten feet of water at a distance of a hundred feet from the shore, was no doubt brought to the surface by atmospheric pressure solely. It needed but the few pounds of lifting to float, and it got those few pounds from the pressure of the atmosphere [to fill the vacuum\*] caused by the explosion. If my theory is false, explode it and set up the true one; as to the fact, there is no way to set that aside.

Respectfully submitted,

WM. L. LINCOLN.

**THE DRY EARTH TREATMENT—THE CASE OF ANNIE PEOPLES.**—As, by an unusual oversight and omission on the part of all the papers in the city, except one, the termination of the case of Annie Peoples, in which the earth treatment was tried, was incompletely reported, it is due to Dr. Addinell Hewson, who appeared as a witness on the trial, that the following statement should be published:—

"In the testimony which the counsel for the defence produced for his client, he did not prove, as in his opening address to the jury he had promised to do, that Dr. Hewson's professional associates at the hospital had repudiated the use of dry earth as a dressing, and the cross-examination of those gentlemen by the District Attorney elicited the facts that they had applied to offensive sores a preparation of which the chief component is clay, and that none of them believed it to be irritating. The counsel for the defence did not produce a single witness to whom such dressings had been applied, to establish that they are irritating, or in any way injurious; nor did he produce a single witness to corroborate the testimony of the chief witness for the de-

fence, Dr. Chapman. These facts, coupled with that of the alleged prejudice which this witness entertained against Dr. Hewson, and with the actual abandonment by the counsel for the defence of his adopted line, even before any testimony in rebuttal (which would have included that of patients treated with such dressing, and of eminent surgeons in the city, who had been subpoenaed) had been produced, show that the allegation of malpractice was untrue, and could not be sustained. Judge Ludlow, in his charge to the jury, set this forth very emphatically. He said that 'the Commonwealth had only pressed for a verdict of murder in the second degree. The counsel for the prisoner had conceded that his opening address as to the maltreatment had failed. There was evidence as to fighting, sufficient, perhaps, to reduce the grade, and the counsel on both sides had agreed to take a verdict of voluntary manslaughter.'"

—*Medical and Surgical Reporter.*

**MR. SPENCER WELLS'S CIRCULAR CLAMP FOR OVARIOTOMY.**—This instrument, made by Mayer and Meltzer, was shown by Mr. Wells at the last meeting of the Clinical Society as the best form of clamp for ovariectomy. He explained how he had gradually arrived at this form of instrument after using Hutchinson's clamp, his own first parallel clamp, and different forms of wire and écraseur clamps, and stated that this new circular clamp is very easily applied and removed, and secures the pedicle quite safely and by a circular constriction, which enables the operator to close the opening in the abdominal wall tightly around the pedicle.—*Lond. Medical Times and Gazette.*

**THE "ALPHA" RAILWAY ARM AND BOOK REST.**—This little mahogany machine (made by Howard, Berners Street, London, W.), which is little more than a foot long, and about a pound in weight, unfolds in such a way as to make a convenient rest for the arm in railway travelling. By supporting the arm, it takes the weight off the spine, and diminishes both the fatigue and jolting incident to the erect posture. It is equally available for first-class railway carriages where the arms are too low, and for the second-class seats which have no arms at all. It is equally useful in an ordinary carriage drawn by horses, as well as for invalids who want to read in their easy chair, and we believe that it ought to form a part of the travelling comforts of all whose avocations compel them to travel much.—*Ibid.*

\* The only point we care to criticize in the preceding letter is the introduction of the words we have placed in brackets.—*Ed.*



FRATERNAL LOVE (*a post-mortem sketch*).—Here's a specimen of egotism, says the *Santé Publique*, exhibiting one aspect of human nature.

A certain physician was in attendance upon a very rare form of disease. In spite of his care the patient died. The physician, in the interest of science, asked the brother to permit him to make an autopsy.

The brother bounded up in indignation.

"What? touch my brother, my poor brother! Profane his corpse! Never! You shall kill me rather than make me forget the respect due to a beloved dead."

"But in the interest of science? —"

"In your own interest, then."

"Ha!" exclaimed the brother in surprise.

"Hem! Are you not of the same blood? The disease which has carried off your brother may have also germinated in yourself. Let me examine the nature of the case by this *post mortem*, and it will become easier for me to combat the disease when it makes its appearance in your own person."

The brother became pale. A quarter of an hour afterwards he himself begged that the autopsy should be made—made with every detail—with extensive notes of everything observed. In short, he insisted so much upon the minute examination of every organ, that the doctor was obliged to say to him:—

"Exactly so. If I comprehend you, sir, you request me to cut your brother up in small pieces, sir, do you not?"—*Medical Record*.

From a report of the Social Science Congress at Bristol, published in the *London Medical Times and Gazette*, we make the following extract:—

"AMUSEMENTS.—The great misery of the world is not dying, but dragging on a maimed, mutilated existence, in which labor is suffering, and pleasure is a burden and disappointment, a state without spring, and without light or color, or at best a dull, monotonous *chiaroscuro*, which, if not distressing, is utterly joyless. Yet to vast multitudes life is nothing better, because in the districts inhabited the fountains of life are inadequate, or are adulterated and poisoned. We cannot very much wonder that the artisan, dulled and half stupefied by the close air and ill odors of the workshop and the lodging, or by the fumes of the factory, should reel into the cheerful beerhouse or the glittering gin-shop, craving for some temporary relief to his weariness and de-

pression. I need scarcely remark *en passant* that one of the most crying wants of the community, with regard to public health, is provision for unobjectionable amusement. In supplying his needs it is not enough to give him oxygen in plenty, and pure water and wholesome food; he has to be entertained as well as fed. Recreation and play are as necessary to mankind as are food and raiment. And if there are not sources of rational and innocuous amusement, then there will inevitably be riot and debauchery. An enlightened and refined community will some day provide for these things. It will not, as of old, be left to self-seeking, ambitious consuls and emperors to corrupt the people with "*panem et circenses*;" but governments will keep a paternal eye over the sports and amusements, as well as over the health and the toil of the great mass of the community."

The Board of Naval Officers recently in session at the Navy Department to determine upon the relative rank of line and staff officers, have submitted their report to the Secretary of the Navy. It is said they recommend that surgeons of the fleet, paymasters of the fleet, engineers of the fleet, and surgeons, paymasters and chief engineers of more than twelve years' standing, shall rank with commanders, surgeons, paymasters and chief engineers of less than twelve years; and the secretary of the admiral and the secretary of the vice-admiral shall rank with lieutenants; past assistant surgeons and first assistant engineers shall rank next after lieutenants; assistant surgeons, assistant paymasters and second assistant engineers shall rank next after masters; third assistant engineers shall rank with midshipmen. These ranks are one grade below those held by the staff officers for several years past, and are in accordance with the acts of Congress of August 15th, 1854, and March 3d, 1859. The rank held by staff officers for several years past was established by an order from the Navy Department of March 13th, 1863, but was never approved by Congress.—*Boston Daily Advertiser*.

This reads very much like making bad worse.

The addition of 1-5000 part of tartaric acid renders the syrup of the *iodide of iron* clear when it has become turbid, and notably diminishes its inky taste.—*New York Medical Gazette*.

## Medical Miscellany.

### DEATHS FROM CHLOROFORM.

*Death from twenty Drops of Chloroform.*—The chloroform was pure, and was given by means of a cone of lint. The pulse stopped suddenly, and all efforts to restore animation were unavailing. The autopsy showed the heart to be rather large and flabby, but otherwise free from disease. The other organs were normal.—*N. Y. Med. Record*, Dec. 1, 1869.

*New York, Dec. 3.*—Mrs. Sarah A. Kruger died at the Washington Hotel, Fourth Avenue, on Wednesday night, from the inhalation of chloroform, which her husband bought for her at a drug store without a prescription. The two had not lived together for a year, and Dr. Cornins testified that she had told him she intended to take her life in that way, owing to her domestic troubles. The jury found that her death was occasioned by inhaling chloroform to relieve headache.—*Boston Daily Journal*, Dec. 3, 1869.

**PARKER'S BREECH-LOADING DOUBLE-BARREL SHOT-GUN.**—A pamphlet of 16 pages describing the weapon is sent us, with the offer of one of the guns as compensation for advertising it. The publisher of this JOURNAL thinks we do not need the article just now for the defence of the office—so he does not want the shot-gun.

We do not prescribe lead uncombined in the form of pills or pellets—so we do not want the shot-gun.

Those doctors whose victims are not all unfeathered bipeds, may like to know that this breech-loader is recommended by Gen. Sigel and other men of war; but for ourselves—we do not want the shot-gun.

We have received from Messrs. A. Williams & Co., 135 Washington St., Boston, a copy of the Address delivered on the Centennial Anniversary of the birth of Alexander von Humboldt, under the auspices of the Boston Society of Natural History, by Louis Agassiz, with an account of the evening reception. It is published under the direction of the Boston Society of Natural History. Every one should possess himself of a copy of this elegantly printed pamphlet. To get an estimate and a personal view of the great naturalist and physicist through the eyes of Agassiz is a rare privilege. Especially satisfactory is it to learn that the mind of Humboldt was not darkened with atheism.

We are requested to note that in the *Galaxy* Dr. J. C. Dalton and Dr. J. C. Draper will represent the scientific department.

**SINDOR OIL AND SINDOR BALSAM.**—These substances are said to be most valuable in skin diseases. They are extensively used by the Javanese. The balsam should have, if genuine, a specific gravity of .922, and boils at 225°. It strikes a blood-red color on being brought in contact with sulphuric acid.—*Medical Press and Circular*.

### MEDICAL DIARY OF THE WEEK.

MONDAY, 9, A.M., Massachusetts General Hospital, Med. Clinic. 9, A.M., City Hospital, Ophthalmic Clinic.

TUESDAY, 9, A.M., City Hospital, Medical Clinic, 10, A.M., Surgical Lecture. 9, A.M., Boston Dispensary. 11, A.M., Massachusetts Eye and Ear Infirmary.

THURSDAY, 9 A.M., Massachusetts General Hospital, Medical Clinic. 11, A.M., Massachusetts Eye and Ear Infirmary.

FRIDAY, 9, A.M., City Hospital, Ophthalmic Clinic; 10, A.M., Surgical Visit; 11, A.M., OPERATIONS. 9, A.M., Boston Dispensary.

SATURDAY, 10, A.M., Massachusetts General Hospital Surgical Visit; 11, A.M., OPERATIONS.

To CORRESPONDENTS.—Communications accepted:—Medical Education of Women—Letter from Maine.

**BOOKS AND PAMPHLETS RECEIVED.**—A Practical Treatise on the Diseases of Children. By Alfred Vogel, M.D. Translated and Edited by H. Raphael, M.D. From the Fourth German Edition. New York: D. Appleton & Co. Pp. 593. Six Lithographie Plates.—A Catalogue of the Officers and Students of Harvard University, for the Academic Year 1869-70. First Term. Pp. 106.—Report of the Committee on Medical Education. Extracted from the Transactions of the American Medical Association. Pp. 30.—Thirty-fourth Annual Report of the Industrial Aid Society for the Prevention of Pauperism, Boston. Pp. 28.

**DIED.**—In Worcester, Dec. 7th, suddenly, Dr. Benjamin F. Heywood, aged 75 years.

### Deaths in seventeen Cities and Towns of Massachusetts for the week ending Dec. 4, 1869.

Cities and towns.	Number of deaths in each place.	Prevalent Diseases.		
		Consumption.	Pneumonia.	Typhoid Fever.
Boston . . . 101	17	13	4	0
Charlestown . 14	1	1	1	0
Worcester . . 19	3	1	2	0
Lowell . . . 13	4	0	0	0
Milford . . . 6	2	2	1	0
Chelsea . . . 7	2	0	0	0
Cambridge . 10	3	2	1	0
Salem . . . 11	3	1	0	0
Lawrence . . 4	1	1	0	0
New Bedford 10	1	2	1	0
Lynn . . . 7	2	0	0	0
Pittsfield . . 4	2	0	1	0
Gloicester . . 9	1	1	4	0
Fitchburg . . 1	0	0	0	0
Newburyport 3	0	1	0	0
Fall River . . 6	1	2	0	0
Haverhill . . 4	1	0	0	0
229	44	27	15	00

Boston reports ten deaths from scarlet fever, and nine from croup and diphtheria. Boston, Charlestown and Worcester each report one death from smallpox. During the month of November there were five deaths from smallpox in Blackstone, and four in the neighboring town of Northbridge.

GEORGE DERRY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON for the week ending December 4, 101. Males, 51—Females, 50.**—Apoplexy, 1—disease of the bladder, 1—inflammation of the bowels, 2—congestion of the brain, 1—disease of the brain, 3—inflammation of the brain, 2—bronchitis, 4—cancer, 2—consumption, 17—convulsions, 2—croup, 4—diarrhea, 2—diphtheria, 5—dropsy, 1—scarlet fever, 10—typhoid fever, 4—gastritis, 1—disease of the heart, 4—infantile disease, 1—intemperance, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 13—marasmus, 3—old age, 3—pyæmia, 1—smallpox, 1—tetanus, 1—unknown, 7.

Under 5 years of age, 39—between 5 and 20 years, 6—between 20 and 40 years, 21—between 40 and 60 years, 16—above 60 years, 16. Born in the United States, 62—Ireland, 28—other places, 11.

## Original Communications.

## MEDICAL EDUCATION OF WOMEN.

By EDWARD H. CLARKE, M.D., Professor of Materia Medica in Harvard College.

THE recent occurrences in Philadelphia, by which a medical class in that city have acquired an unenviable notoriety, have brought the subject of the medical education of women more prominently before the community than before. Nothing advances any cause so much as the martyrdom or persecution of its disciples. In this way the Philadelphia medical class have given an unexpected impetus to the cause they opposed. In an address to the graduating medical class of Harvard College, delivered last March, I considered briefly the subject of the medical education of women. In view of the recent occurrences at Philadelphia, these remarks may be of interest to some, who were not in the audience to whom they were addressed. They are presented here as a contribution to the discussion of a subject, which the community will continue to discuss till a satisfactory solution is reached. It is perhaps needless to say that the following views are not given as those of the medical department of Harvard College on this subject. The writer alone is responsible for them. The style of an address to a class is preserved on account of the inconvenience of altering it.

"With regard to another matter, in which you are somewhat personally interested, public opinion is vacillating. I refer to the status of woman in the community. Her claim for admission into the medical profession is only a part of her general claim for admission into every possible avenue of labor. Whatever may be the final decision of this question, it is evident that the light which physiology can throw upon it—the facts which physicians can best supply—will contribute largely to its correct solution.

"I am aware that this is a delicate subject. So much ridicule, sarcasm and false senti-

ment have been thrown about it of late, that it is difficult to speak of the woman question without exciting a smile. But in spite of ridicule, prejudice, sentiment and passion, the question forces itself upon the community. It demands and will have a hearing and an answer. I do not propose to inflict upon you a discussion of woman's sphere. For you may be sure that whatever she can do, she has a right to do, and eventually will do. Everything finds its own place, whether it be a flower or a poem, a race or an individual, a man or a woman. But as in the effort to open for herself a broader way of life, woman just now knocks hardest at the physician's door, it would be alike mean and inexpedient not to give her a courteous hearing and the best answer. Thus can medicine, thus can you and I, aid in the formation of a correct public opinion.

"There are one or two considerations that are important in this connection. The first is that, *a priori*, woman has the same right to every function and opportunity, which our planet offers, that man has. It is idle to talk about this or that being right for man and wrong for woman. Whatever is right for one is right for the other. The real question is not one of right, but of capability or possibility; and this resolves itself into one of organization and development. Just here, comes in the necessity of interrogating physiology. An exact knowledge of woman's organization and possible development, would show both what she can do and what she ought to do. What the possible and coming woman may be, I will not venture to say. This, however, may be safely affirmed, even after giving the fullest credence to Darwin's theory of development, that a woman will never develop into a man, or a man into a woman.

"There is a second consideration, which is a corollary from the preceding one. It is this. If woman has the same right that man has to every sort of knowledge and every sort of work, it follows that she has an equal right with him to the privileges and the responsibilities of the medical profession. This is not only so on *a priori* grounds, but there is nothing in the nature

of Medicine to forbid it. Medicine knows among her votaries no distinction of race, or sex or color. The doors of her temple are open to all worshippers. According to the ancient Pelagic mythology, Æsculapius was surrounded by a cortege of disciples of both sexes, who dispensed his benefits to mortals. This was the earliest symbol of medicine, and is typical of it. Our modern science is no degenerate child of the ancient God, and with outspread arms welcomes all who can do her bidding.

"I say, can do her bidding, for here lies the real question. The point about which public opinion is to crystallize is not whether woman has the right to study and practise medicine, for she has this so clearly that it is absurd to doubt it; nor whether there is anything in medicine itself, that is improper for woman to know or to deal with, for science—knowledge—may ennoble, it can never degrade man, woman, or angel; the point about which the public is in doubt, and needs enlightenment, is simply whether woman's organization will permit her to undertake the toil of the medical profession and successfully compete with men therein. It is not more true that one star differeth from another star in glory, than that man differeth from woman. The glory of man is one: the glory of woman is another. But difference is not inferiority. The sexes, though different, are joined by equal privileges and equal rights. If woman's organization does not adapt her to the practice of medicine, she will never succeed in it. If the reverse is true, no opposition or prejudice, no law, argument or ridicule will prevent her from successfully engaging in it.

Under these circumstances, the course of wisdom for you and for the medical profession is not to oppose the efforts of women in this direction. Let the experiment of trying female physicians be fairly made. Throw no obstacle in the way of a complete experimental solution of the problem. The underlying principle of your profession is to seek for the demonstration of the truth. In fifty years we shall get the answer. Shall I hazard a conjecture as to the answer? It would be this. Guided by the light of physiology, I have no doubt that women can master the science of medicine, as they have done that of astronomy and mathematics, as successfully as men; but that only in exceptional departments will they become successful medical practitioners.

"The admission of females into our medical schools, under the present organization of the latter, involves not only the question

of the medical education of females, but the propriety of teaching the two sexes, at the same time and in the same room, with the same illustrations, human anatomy, human physiology and human pathology. I do not admit that there is anything demoralizing in these studies to either sex. On the contrary, they are ennobling; but it does not follow because they are so, that it will elevate and purify boys and girls, or men and women to study them together. A bath is a necessary, luxurious and purifying process for all, but it does not follow that it is wise for the two sexes to bathe at the same time and in the same tub. A certain amount of juxtaposition of the sexes ennobles both; more than a certain amount degrades both. I will not undertake to argue this point with those who do not instinctively feel and acknowledge its truth. I will only say, that I would not have a son of mine associate with any woman, who *felt* no impropriety about dissecting the human body with him. I hope to live long enough to see, here in Massachusetts, the ballots falling impartially from male and female hands into all our ballot boxes; so shall liberty and justice be made secure forever; but God forbid that I should ever see men and women aiding each other to display with the scalpel the secrets of the reproductive system; or with crucible and microscope investigating the constituents of the urine; or charmingly discussing together the labyrinthine ways of syphilis.

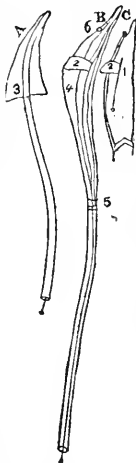
"Do you ask, then, how women are to obtain the education, by which to prove or disprove their ability to practise the art of medicine? The answer is evident:—Those who desire to have the experiment tried must furnish some of our existing medical schools with the means of giving separate medical instruction, or they must build and endow separate schools for women."

#### CONSTRICTION OF THE OESOPHAGUS.

By W. A. GILLESPIE, M.D., Louisa Co., Va.

ON Feb. 1st, 1869, I was called to a Mr. R., who had been in California some years ago, where he contracted a disease for which he was profusely salivated by a quack doctor. The result was that ulceration of the posterior fauces caused a cicatricial contraction and stoppage of the posterior nares and a stricture of the upper part of the oesophagus, seriously interfering with respiration, which was extremely laborious and deficient—the cicatrix pressing on the epiglottis. It also prevented

swallowing anything but liquids. The stricture was gradually increasing, and threatened death by apnoea or starvation. It could be reached by the point of the finger, and admitted the passage tightly of a common-sized bougie. The indications were to remove the stricture, which I attempted by the introduction into it of the bill of a curved (Physick's needle) forceps, and then by forcibly separating the handles to stretch and tear the stricture, which succeeded in some degree, with very little pain or hæmorrhage. I then dilated the stricture by frequent forcible introduction of an instrument A, made by wrapping the end of a common bougie, with a stout wire inside, with strips of cotton cloth covered by smooth leather and securely fastened on, and of a conical shape. This dilated the stricture enough to pass the end of the finger, by which I ascertained that the constricted part was three fourths of an inch wide, callous and firm. Not being satisfied with partial success, I improvised a rude but effective instrument for cutting the stricture, B. On a common bougie, with a stout wire inside to give it a curve and strength, I attached the blade, 2, of a spring lancet projecting through a piece of leather wrapped around and fastened to the bougie, and then, to guard the sound or non-constricted parts from injury by the lancet, I fastened a crooked steel spring at 6, and wrapped it loosely at 5 to let it slip when pressed on by the stricture standing at rest nearly level with the point of the lancet 2, but lying flat on the instrument C at 1, with the lancet freely exposed to cut when pressed on by the stricture. I then measured the distance from the upper front teeth to the stricture, tied a string around the instrument at same distance, and passed the lancet through the stricture, but not deeply. It gave little or no pain, and there was only slight hæmorrhage. After this I used the dilator A rapidly, because its introduction interfered with respiration, and with some force repeatedly. The opening is now from three fourths of an inch to an inch in diameter, admitting the easy introduction of a large stomach-tube.



The patient professes great relief, and says he can now breathe as easily as he ever did in his life, and can swallow solid food—bread, meat, &c., *ad libitum*. In addition, I advised the patient to use the dilator every day himself, to take iodide of potassium in a decoction of sarsaparilla, and to apply daily to the stricture, by means of a small sponge-probang, one grain of extract of belladonna and a portion of tincture of iodine, alternately.

From being greatly afflicted and constantly growing worse for two or three years, the patient is now hopeful of recovery. He is certainly comfortable when compared with his previous condition of torture and despair.

He had been advised to go to some city for surgical aid, upon the ground that there were no surgeons in the country competent to undertake his case.

#### VIGILANCE TREATED WITH CHLORAL.

By D. F. LINCOLN, M.D., Boston.

A LADY, æt. 40, suffering from nervous prostration, the result of over-fatigue and anxiety. Sleeps only two or three hours, toward morning. Says she went a whole week without sleep, except an hour one night. Opium is said to produce obstinate wakefulness; valerian to have no effect. No perceptible effect was obtained from the use, on different nights, of tinct. lupulinae ʒij., ext. cannabis (Squibb's) gr. i., ext. hyoscyamin (Allen's) gr. iij., gr. vi. and gr. xii. Finally, a scruple of hydrate of chloral (Markoe's) was given, and the patient slept seven hours; and on the next night enjoyed a tolerable amount of sleep without taking any medicine whatever. As uneasy feelings in the head seemed to follow the use of this agent, the dose was reduced to fifteen grains, and the latter quantity has now been taken on eight evenings, invariably giving a full night's rest of seven or eight hours, and leaving no perceptible unpleasant results of any sort. The relief is immense, and the effect upon the general health is very beneficial, as might be supposed.

#### PERITONITIS AND ULCERATION OF GALL-BLADDER, FOLLOWING A KICK.

By N. L. FOLSON, M.D., Portsmouth, N. H.

W. F., of this town, a boy 12 years old, perfectly healthy, was kicked by a man on the 12th of June, 1869, and died on the

25th of the same month. The kick on his right side left a mark an inch in diameter on the upper edge of the ilium and an inch above. That mark and surroundings became black and blue, and remained so to his death. After getting away from the man, he laid down under or beside a fence, in great pain for a quarter of an hour, and then went home, an eighth of a mile.

He was restless that night, and had profuse diarrhoea the next morning, with a distressing bearing down at the time of the operations. [This diarrhoea continued, more or less, during his life.] He attended school the next morning, and went to school most of the time. He also played hoop, ball, jumped from fences, wheeled a wheelbarrow with fifty pounds of bone in it, and run and played in various ways with other boys. He complained but little of pain in his side, but laid around the stove and in the sun often; he acted somewhat dumpyish a part of the time, looked pale, ate little, and would take no warm drinks as he used to do, but wanted cold water.

On the 25th of June, at ten o'clock in the morning, he had trembling and distress; in a few hours he had vomiting and spasms, which continued from time to time until he died, about twelve o'clock the following night.

The physicians who made the *post-mortem* examination, next day, said there was discoloration of the surface of chest, abdomen and side to a considerable extent; also, that there was a rupture of the gall-bladder and effusion of bile into the cavity of the abdomen; considerable peritonitis; inflammation and softening of the mucous membrane of the stomach.

The man who inflicted the injury was tried for manslaughter, and the jury disagreed. Three were for manslaughter, and nine for assault.

Did the kick kill the boy? Did it rupture the gall-bladder?

No physician attended him during his sickness.

### HORN Y TUMOR OF THE EAR.

By J. P. WHITTEMORE, M.D., Haverhill, Mass.

I NOTICED in a former number of your JOURNAL an account of a horn growing upon the eyelid, and the reading of it brought to recollection a circumstance of similar nature which occurred to a townsman and patient of mine, some fifteen or twenty years since, while practising in the town of Chester, N. H. It was this. Mr. B. was a contrac-

tor and builder upon the Ogdensburg railroad at the time of the accident, and previous to my acquaintance with him; and being one day uncomfortably near some of his men who were blasting rocks, a small fragment struck him from the rear and perforated the cartilage of the right ear about three eighths of an inch from the rim near the top. The hæmorrhage, he states, was very profuse and continuous; but the wound soon healed, and the occurrence passed into forgetfulness, until about six months after, when he discovered a hardened excrescence rising upon the rim of the ear, just above the wound. This continued to grow until it attained a length of nearly half an inch and a diameter of about one fourth of an inch, when its size caused it to be troublesome and often much in the way, occasioning tenderness of the soft tissue at its base. About one year, I think, from the time of the accident, I removed the horn by carefully separating the soft from the hardened tissues; when again I had free hæmorrhage from a small artery which seemed to have become the source of supply to the horn. Upon examining the growth, it was found to consist of regular layers or laminae, which resembled in every particular the horns of the lower animals, and had it been removed from such it would have excited no unusual curiosity.

### Selected Papers.

#### SPINA BIFIDA. OPERATION AND REMARKS.

By B. ROEMER, M.D., Kanawha Salines, W. Va.

I was called in the night of July 20, 1869, to visit Mr. James H——, an operative at one of the salt furnaces in this valley. Found him suffering under cholera morbus consequent on the use of strongly acidulated beer, of which he had partaken at dinner. His wife, having gone nearly to her full term of gestation, was taken in labor a few hours before I arrived, "the waters having broken" suddenly, while endeavoring to wait upon her husband. Satisfying myself of the vertex position of the child's head, I left her in charge of a midwife and gave my attention to the more urgent case. Delivery took place about four hours after the first rupture of the membranes, by which time Mr. H. was sufficiently relieved to allow me to inspect the female infant, at the request of the woman who had taken charge

of it. A watery tumor, globular in form, with a well defined short neck about one inch in diameter, and in size equal to a green walnut inclusive of hull, was found upon the lower lumbar and sacral region. Rudimentary processes were distinctly felt lining each side of the cleft, the lateral arches being only partially developed. I informed the midwife of the nature of this malformation, advised caution in communicating with the parents, and applied a roller sufficiently tight over the tumor to insure moderate pressure and safety from external injury. The color of the coverings was that of the surrounding skin; the child was otherwise well formed, without undue development of head; there was no paralysis of the lower extremities; bladder and bowels acted normally, and the infant took the breast well and at suitable intervals. I saw it again on July 22d; noticed no change save a slight enlargement of the sac, whose envelope was then of a redder tint, and traces of fine bloodvessels more perceptible. While the appetite and natural discharges were regular, I was told that the child was never fully awake, but lay in a semi-comatose condition. The parents doing well, I informed them of the consequences of this affection upon their child. Being themselves poor, and their offspring likely to inherit a similar future, the question of restoration to corporeal independence outweighed the possible loss of their child, and I was requested to do what I thought proper in my endeavor to remedy the malformation.

I will here state that the father is 50 years old, of good muscular strength and build. His wife, a primipara, is 28 years old, and a fair type of feminine muscularity, such as laboring classes usually exhibit; and their respective families are to their knowledge without symptoms of tuberculosis, nor have similar abnormalities been known.

The operation was performed on July 28th. The dimensions of the sac, now of double its original size, were as follows:—

Circumference around neck. . . . .	3½ inches.
“ of cyst along median line . . .	7½ “
“ at right angles. . . . .	6½ “
Depth from summit to level of spine. . . .	2½ “

The covering was of a pale pink color, and its bloodvessels well marked. The instruments, &c., used, were:—Brambilla's trocar (for dropsy of the eye), combined with the exploring needle; bistoury; probe; a meningophylax, with convex, but narrow and oblong compressor (see Blasius's *akur-*

*gische Abbild.* Taf. XXI. Fig. 7); needles; adhesive plaster; white wax, and collodion with brush.

Puncturing the sac with the trocar, a sufficient quantity of clear serum\* was slowly allowed to escape to collapse the cyst around the cleft for a more careful examination. A small piece of wax was next moulded around the compressor to fit the outlines of the opening, especially at its upper portion, and extravasating with gentle pressure (aided by the blunt probes to reopen from time to time the puncture) as much of the liquid as dilated the sac over and around the cleft, I applied the compressor slightly warmed (to mould the wax still further to the shape of the cavity, and to insinuate itself around the rudimentary lateral arches, which limited each side in shape of small cones) firmly upon it, and gave it in charge of an extempore assistant, whom I had previously instructed. Being satisfied that the compressor controlled fully the communication with the interior spine, I made with the bistoury an incision at a depending point of the sac, thus giving exit to the remaining serum mixed with a little blood from the covering, and formed by a horizontal cut of the envelope two flaps, the upper one sufficiently long and much below the compressor, so as not to interfere with it, and the lower one short to meet it. Two stitches were taken, and four narrow adhesive strips laid across the incision and as near as possible to the compressor, which had not been removed nor relaxed. A firm coat of collodion was then added to close the interstices, and a compress retained by a many-tailed bandage around the body of the child. No further exudation of fluid occurred. The child was quiet throughout the operation, which lasted twenty minutes, and it gave evident signs of appetite, which were gratified at its completion; it took the breast readily. I directed to re-apply collodion wherever it seemed about to peel off.

Aug. 1.—Improving; bowels and bladder act regularly; appetite good; instead of the former comatose condition, the child now has its alternate spells of waking, sleeping, eating, and crying.

Aug. 9.—Removed adhesive plaster and cut one remaining stitch; adhesion perfect and firm. Covered the whole cicatrix with collodion, and re-applied the many-tailed bandage with a compress, a piece of soft

\* The quantity of liquid collected amounted to four ounces and three drachms; it was limpid, saline, and not albuminous.

leather one-eighth inch thick, properly secured in a cushion. The child is gaining flesh; motory power over lower extremities unimpaired; measurement of the head, before and since operating, gives as yet no increase in size.

Aug. 29.—The child is doing well; has gained up to this time two pounds in flesh; head unchanged; cicatrix contracting; re-applied a firm coat of collodion and former compress with bandage.

Sept. 17.—The child uninterruptedly improving in strength; weighed to-day fourteen pounds, a gain of four and a half pounds since the operation; motory power perfect, and the appearance differs in nothing from that of other healthy children.

Certain peculiarities of fetal life seem to favor the production of congenital hydrorachis:—

1. The spinal column is proportionately larger in the infant than in the adult; it is symmetric with the head; the primary formative process is more active and centric, and the laws of genesis, because here the most necessary and specifically most required, seem to apply as well to the spine as to the skull.

2. The spinal column is perpendicular to the horizontal diameter of the atlas, and descends uniformly in a straight line; the pressure of the cerebro-spinal fluid and its superstrata is therefore direct and uninterrupted by the friction of subsequent curves. This becomes of greater importance, because:—

3. The pyramidal figure of the spinal column is reversed in the fetus, its apex lying in the lumbar vertebrae. The amount of pressure from the fluid exerted at the apex is represented by the weight of the fluid minus the friction along the walls. Add to this, that the development of the lumbar vertebrae commences usually by five cartilaginous centres, which even at birth are separately movable, and we should, *a priori*, look for a greater frequency of spina bifida in that locality.

The undulatory movement of the fontanelles in an infant is based upon a two-fold cause, an arterial and a respiratory; the former causing the elevation of the covering during or immediately after the systole and a depression in the diastole. Ecker, Burdach, Magendie, and others, found the same ebbing and flowing to exist in the spinal column; and that other observers, Haller and Flourens, have failed to discover it, is probably owing to the selection of animals for experimental purposes which really do not possess this quality (domesti-

cated rabbits). The lungs, however, have a more decided motory power over the brain. As each expiration raises the brain, the cerebro-spinal fluid is propelled upward, and it recedes at the inspiration; the former favoring the propulsion of the arterial blood and retarding the collapse of the venous trunks, while the latter has an opposite result. Ecker has shown that the ultimate removal of the cerebro-spinal fluid conditions a corresponding diminution of the respiratory evolutions of the brain, which is only restored to its former magnitude by closing the wound and allowing the fluid to be reproduced. The venous sinus of the spinal column is, however, capable of greater distention than the vessels of the brain, and a certain volume of fluid finds its way by displacement through the lower portion of the fourth ventricle, cerebro-spinal opening, fourth ventricle proper, aqueduct of Sylvius, third ventricle and foramina of Monro, into the lateral ventricles on each side, by which the overlying brain is elevated.

In the normal relation of the cerebro-spinal fluid with the brain and spinal cord, it secures the surrounding surfaces against friction with neighboring resistive structures, fills the open spaces, and gives way to the various displacements of the contents. The fluid may be said to support the accumulation of venous blood in congestion, inspiration, &c., and is itself supported by the venous blood of the interior vertebral canal. In the reciprocity of this pressure may, perhaps, by future investigations, be found the cause of certain obscure diseases, tetanus, chorea, &c., of which I may speak in a future article.

In the abnormality of a greatly increased volume of fluid in the encephalon, these movements are considerably lessened, of which fact the full and distended fontanelles are the evidence, especially in congenital and internal hydrocephalus, and one of the most important causes of this disease is to be found in the occlusion of the passage of fluid by a membranous gate across the sylvian aqueduct; not because the fluid could, *eo ipso facto*, not be as readily absorbed, but because by a want of retrocessive pressure through this passage to the continuous spinal cord, the restorative activity of the brain is paralyzed and reparation impossible. In hydrorachis, it may be presumed that the movements of the brain are only diminished in a direct proportion with the volume of fluid. Ecker found the spinal undulation *undiminished* after total removal of its fluid, and supposed that the expansive



capacity of the spinal venous sinus must be powerful enough in itself to raise the spinal cord.

The faculty, therefore, of displacing an accumulation of the cerebro-spinal fluid by pressure, as we witness it in spina bifida, is not one peculiar to this affection *per se*; no further morbid condition of the cord and its continuity with the encephalon is necessary for its existence. It constitutes another proof for such a communication. In like manner does the removal of the fluid by puncture diminish or annihilate the support to the bloodvessels, and a failure of counterbalance to any hyperæmic status is the consequence.

The comatose condition of the infant with spina bifida is the direct result of pressure.\* The experiments of F. Magendie (*loc cit.*) have shown that water of 36°–37° C. (96.8°–98.6° F.) injected through the dura mater produces similar phenomena, sometimes united with irregular muscular action. The volume of pressure also exerts its influence in morbid conditions. Hydrocephalus is usually present when the spinal deficiency is located in the cervical region, less frequently *pari passu* with a lower position. The same analogy by which, according to Morgagni (*de sedibus et causis Morborum*), the absence of a cervical vertebra predisposes to apoplexy is applicable here, for the greater approximation of the heart's impulse to the brain increases also the exponent of pressure of an augmented fluid.

Any sudden impression on the nervous system, not only by disturbances in its characteristics as vital agents, but also by the more mechanical action of a reduced compression (as in the abstracted cerebro-spinal fluid) leads to a constant increase of local sanguine force, and we meet it in the sudden death in childhood from hasty alteration of posture after spasmodic disorders (or disorders of spasmodic tendency), owing to an impaired respiratory process. As adjunct causes, we notice that in infancy the bloodvessels of the brain and spinal column are more liable to give way under pressure without being ruptured, and that, consequently, by the greater fluctuation of the unossified skull the relative quantity of blood can be permanently much increased without giving rise to extravasation. Advanced life gives apoplectic seizures where in childhood we find spasm and hydrocephalus, for the exponents of which we look to the impaction of the nerve centres,

cushioned upon the accumulating blood in its full and fluctuating vessels to the production of a hypostatic hyperæmia, under which the animal economy is obliged to succumb. Again, the elimination of the separating medium, the cerebro-spinal fluid, induces nevertheless a congestion of the cerebral veins; certain parts of the brain, &c., approximate each other so that, especially, the pneumogastric nerve is so compressed as to result in pulmonary paralysis or violent epileptic spasm with fatal laryngismus stridulus.\*

Passing now to the *treatment* of spina bifida. We find not only a variety of procedures, but also a seeming indiscriminate as to the best mode to be adopted in certain cases. Some writers favor the Baglivan axiom of "*scire multa agere pauca*," and advise a course of treatment well suited in a case of an infant of "wealthy or otherwise well to do people." "*To interfere as little as possible with the tumor; if any local medication only a simple discutient lotion, or a defensive and discutient plaster with gentle pressure; abdominal secretions and excretions promoted; a healthy wet nurse under the treatment of a course of iodine* (see *Cope-land's Med. Dictionary*), was perhaps effectually carried out in the case given by Dr. Wm. Pepper (*Amer. Jour. Med. Science*, July, 1867, p. 137), who saw the result of one of the most favorable instances, none of the fibres of the spinal cord entering the sac, not interfered with. The existence, however, of spina bifida in after years, is an exception to the rule, and should not govern the practice and decision of the surgeon.

Repeated puncture of the cyst, with gradual extravasation of the contents, was first practised by Ruysch† and afterward by Abernethy.‡ Abercrombie added gradual pressure, which was more fully carried out by Sir A. Cooper.§

The objections against repeated puncture, with or without systematic pressure, may be summed up as follows:—

1. All cystic collections have a common

\* Duges reports a case of spina bifida in *Revue Médicale*, April, 1823, in which he maintains that such a tumor was ruptured in utero, and closed again *ante natum*. This is possible under the supposition that the encasement of the fetus within the membranes and the pressure of the liquor amnii are sufficient to support the cerebro-spinal fluid and counterbalance its gravitation. The subsequent vertex position of the fetus may also aid in effecting this result. In the case here reported, the intra-uterine motions were strong, as common with most children. The coma supervening after birth may be due to the removal of these causes.

† Observat. Anatom. Chirurg. Observ. 35, 36.

‡ Surg. and Physiol. Essays, part I., i. 75.

§ Medico-Chir. Transact. (Philad. Ed. Anat. and Dis. of the Breast), pp. 55–63.

\* F. Magendie, Physiologische u. klin. Untersuchungen über die Hirn u. Rückenmarksfliessigkeit, pp. 23–26.

tendency to reproduce an altered fluid of greater drainage and destruction to the system. The non-albuminous contents become albuminous, particles of pus and *débris* of lymph are seen floating about. The few cases on record belonging here, teach, that after a primary diminution of the sac, the irritation was transplanted to the brain (convulsions, hydrocephalus), and after death a creamy pus occupied the cyst in communication with the theca vertebralis; lymph was found adhering to the arachnoid lining, with general appearances of acute inflammation, &c.

2. The most unfavorable grade of spina bifida, "ulcerated coverings, giving way under the inflammation of the membranes of the cord with the symptoms of spinal meningitis," is invited by repeated perforation. (See Copeland, p. 742.) At each extravasation of the fluid, we induce a hyperemia of the superior bloodvessels and more or less friction between parts before separated.

These objections are of greater import if the perforation is associated with the injection of iodine, as practised by Velpeau and Brainard. In injecting the cyst we really bring an irritating fluid in direct contact with the nerve centres, and if, to obviate the injurious effects of such a contact, we ligate the base of the sac, we must first determine the probable consequences of

1. The absorption of the injected fluid;
2. The inflammation of the constricted membranes and its approach to the internal arachnoid; and,

3. Should all happen well, where is the guarantee that we may expect a removal of the strangulated cyst with perfect adhesion, rather than the third variety of spina bifida, according to Billard (*Traité des Malad. des Enfants*, &c.), "the skin opened, allowing the effused fluid to escape through an ulcerated perforation," and of which he says that death follows speedily? (Copeland, *loc. cit.*, p. 741.)

Dr. Samuel D. Gross tried the proceeding of B. Bell, tying the base of the sac so as to cut off the further propulsion of the fluid, but unsuccessfully. Dubois uses a steel clamp to compress the cyst and bring about adhesive inflammation. The actual cautery has even been proposed. The proceeding of Dubourg\* comprises the removal of a part of the sac at its base so as to form two flaps, the finger of an assistant preventing the escape of the spinal fluid and the

entrance of air. The wound is closed with hare-lip pins and the twisted suture. Recommended by him only when the swelling is moderate and the child's head otherwise good. Beynard\* surrounds the base of the tumor with a spring into which a ligature is introduced and ties it up. By a gradual constriction of the ligature, the inner walls of the sac are brought into contact, and after effected union he cuts off the exterior and brings the suppurating edges together with adhesive plaster. Sometimes he punctures the cyst, should the swelling be very tense. Chelius prefers the mode of Beynard to that of Dubourg. Most† speaks of electro-puncture, by which he thinks to obtain adhesive inflammation.

The objects which I had in view in operating for spina bifida, as indicated, were:

1. The selection of favorable cases: non-complication with hydrocephalus, other deformities or multilocular and open cysts. Absence of symptoms that the brain is seriously implicated.

2. Gradual and careful extravasation of the contents without suction upon the spinal canal and descent of its fluid.

3. Prevention of entrance of air.

4. Perfect closure of the wound without the use of irritating means, so that all causes leading to local or continuous inflammatory action may be avoided, and healing by first intention promoted.

5. Subsequent systematic support of the cicatrix until the defective spine is supplied with a firm covering, relying upon the efforts of nature to supply the place of an osseous with a cartilaginous formation, as we see it after trephining the skull.

I adopted the perfect occlusion of the spinal opening by means of a suitably-shaped instrument, as fulfilling the second and third proposition. I found, in my collection, the meningophylax of the most promising shape. To obviate the possible escape of the fluid, because of the irregularity of the cavity, I added white wax to the compressor and softened it before its application, to insure its cast-like entrance. Perhaps future operators may find a hollow rubber cone, or calcined gypsum moulded into the cavity and allowed there to harden, of better service still. The time necessary to give solidity to the cast is so short, that no fears need be had on that account, especially if the composition is properly made. The relative length of the flaps is obvious, in order to avoid moving the compressor,

\* *Jour. de Méd. et de Chir. de Toulouse*, Sept., 1839. See also Chelius's *System of Surgery*, translated by South; vol. iii. p. 190.

\* *Gazette Méd. de Paris*, vol. ix. pp. 451, 700.

† *Encyclopædie der gesammten Med. und Chirurg. Praxis* ii. p. 73.

and the whole operation, even to the coat of collodion, is completed before the meningo-phylax is relaxed. I will further mention, as an advantage for this operation, that the assistance necessary can be rendered by any one having a moderate degree of self-possession and fortitude, and that the after treatment can be intrusted to most nurses. The operation once finished, no essential part of it need to be repeated, nor does the uncertainty in the maintenance of uniform pressure, so much depended upon in puncture followed by a hernial support, leave the success of the operation in hands little qualified to guard it effectually. —*Cincinnati Lancet and Observer.*

### GUN-SHOT WOUND OF THE KNEE-JOINT.

By R. H. JOHNSON, M.D., Cincinnati.

G. T. D., aged 25, March, 1864, was shot from behind, through the right knee-joint, with a small pistol-ball, at the moment of passing out and over the threshold of the door of a saloon, the limb being flexed just as the foot was raised to make the stride. The ball, on entering the popliteal space, evidently did not touch either of the three *synovial bursæ* beneath the adductor magnus, nor the popliteal artery, nor either of its branches—the anterior and posterior tibial—as not a drop of synovia or arterial blood issued from the wound either at entrance or exit of the ball; the latter wound being a little to the left of the centre of the lower edge of the patella. I at first surmised that the ball might have made the half circle of the joint, but critical examination failed to find any evidence of it. The ball had passed directly through the joint, and without producing any fracture, as the sequel proved. It must have passed between the two lateral eminences, the tuberosities or spine of the tibia; nor was it deflected from its course by the double head of the gastrocnemius, as they are separated when the limb is flexed. The patella was uninjured.

*Treatment and Result.*—No mechanical pneumatic occlusion of the wounds was applied, as they soon became dry, and apparently healed by first intention—nature obviating the necessity of art appliances. Enormous enlargement of the joint and limb took place, which was combated successfully with free and repeated application of leeches, cold-water dressing, perfect rest and spare diet.

At one of my visits I was surprised to find an enormous poultice covering the joint

and part of the limb, which I threw out of the window, and learned that a medical friend of the family had been called in by some one, who had applied the poultice. I refused to have anything further to do with the case if to be interfered with in this way—impressed the importance of avoiding suppuration and consequent exhaustion, and perhaps ankylosis or death, and demanded to know whether I should continue to treat him. By his consent and desire, I continued, and the case went on to a rapid and successful termination. In six weeks he was out on crutches, with daily increasing flexion, resulting in such good use of the limb—the joint—at the end of four months, that he went to Indiana and assisted his father in the harvest field, the joint not in the least ankylosed. I saw him today, October 15, when he informed me that the only trouble he had ever had, and still has occasionally, is a neuralgic twitching pain for a moment or two.

What must have been the result had the poultice treatment been continued, as was too often the case in the late war, it is easy to conceive—ankylosis, exhaustion, suppuration, and perhaps death from pyæmia. I have sad remembrance of the death of a gallant colonel of one of the regiments of the 14th brigade, 2d division, army of the Cumberland, from this *poultice* treatment, on board a steamboat at Shiloh, and when I visited him, remonstrated with him and his attendants, warning them of the result, which was exhaustion, suppuration and death from pyæmia.—*Ibid.*

### Reports of Medical Societies.

OBSTETRICAL SOCIETY OF BOSTON. SECRETARY,  
DAVID F. LINCOLN, M.D.

OCTOBER 9th, 1869.—The society met at the house of Dr. WELLINGTON, at 7½, P.M. In the absence of the President, the chair was occupied by Dr. MIXER, Vice President.

Dr. WELLINGTON spoke of a case of labor which he saw in consultation. Upon his arrival, he found the uterus contracting with vigor, but apparently without effecting any change in the position of the child. This condition had existed for two hours. The presentation was a natural one, the head had passed the brim of the pelvis, and no obstruction to its progress was apparent. The forceps was applied, and the child delivered without difficulty. Dr. W. thought that such retardation of labor might be due

to the fact of the circular fibres contracting, while the longitudinal ones remained inert.

Dr. LYMAN related a similar case, of which he could offer no explanation except the one just given.

Dr. ANNOT described a case of entire separation of the placenta before birth, with death of the child. The labor was the first natural one after several miscarriages. The fetal heart was heard distinctly, two or three hours before the close of labor. Child born dead. A clot, much larger than the placenta itself, came away directly after the latter. Both placenta and child were small. The maternal surface of the former appeared healthy. There was no hemorrhage before the birth of the child.

Dr. REYNOLDS reported the conclusion of the case of *dropsy of the amnios*, described at the previous meeting of the Society, as follows\* :—

At 9 o'clock in the evening of the 27th of June, patient found herself deluged in bed, and, getting up, filled three basins (one wooden pail completely full) with *liquor amnii*. She appeared at my office, in town, at nine the next morning, and was sent, through the benevolence of the Lying-in Hospital, to one of the public charities.

Labor began at 11 that morning, and at 3 in the afternoon a well-developed child, apparently just dead, was born. The child came footling, under the charge of a medical student, who had never before seen a birth of this kind. He is not sure that he felt pulsation in the cord during labor, but the delay in the delivery of the head was quite enough to account for the unfortunate result.

Labor occurred about three weeks earlier than the expected date. Unfortunately, careful observation as to complete maturity of the child was not made. The important fact that no fetal movements whatever were perceived at any time during the pregnancy, together with the apparent over-development of the uterus at seven months, and the extreme sensitiveness of all parts of the uterine wall, have been previously reported.

*Convulsions before Term; High application of Forceps; Hand caught between Forehead and end of second Blade of Forceps; Extraction of an immature Head thereby rendered very difficult.* Reported by Dr. REYNOLDS.

M. H., æt. 30. Seven years married. Had two preceding miscarriages in early

months. Is now reported eight months pregnant.

On the 24th of August, 1869, at 7½ in the morning, had a severe convulsion. (It was intimated that there had been a violent quarrel just before, perhaps blows.) The convulsions recurred frequently during the day, without return of consciousness. Anæsthetics were not employed. There was no evidence of uterine action.

I saw her at 4 o'clock. There were now some signs of uterine effort. The os was of the size of a quarter-dollar piece, not rigid; head very high; position apparently occiput to left acetabulum; sutures were felt to be freely open; membranes still entire.

She was put under full surgical etherization, long continued. At about 6 o'clock, when the ether had been for a time suspended, there was a slight return of the convulsions, but no other recurrence. The fetal heart seemed to be still beating feebly.

The os dilated well and promptly under the use of Barnes's water bags. At fifteen minutes after six I ruptured the membranes, the head still remaining very high. Fifteen minutes later, at the earliest practicable moment, I applied the long forceps of Dubois. The introduction of the second blade was attended with an amount of resistance which it seemed very hard to explain, and only after that blade had been twice withdrawn, to be cautiously re-applied. To my surprise the extraction, which from the imperfect ossification of the head might have been expected to prove very easy, was extremely slow and difficult. The child, a male, apparently eight months advanced, still, was born with one hand and wrist caught between the forceps and the head. There was, over the right frontal bone, a marked depression of about an inch in length, with irregular edges, as if indented by the pressure of wrist and hand. It is scarcely necessary to point out how inevitably, under such a state of things, the flexed and fixed elbow of the included arm would increase the fetal diameter, and thus resist efforts to extract.

The placenta, which was exceptionally small, was quickly delivered. The uterus contracted well and there was a fair pulse. The patient did not, however, have any return of consciousness, and died in the evening.

Such a history forcibly illustrates the importance of the classical rule, that the free hand of the accoucheur ought invariably to precede the blade which he is introducing. In a case like the one just reported,

\* See p. 171 of this Journal, Oct. 7th, 1869.

the very high position of the head, the small amount of dilatation obtained (just enough to permit the forceps), and the urgent necessity for prompt delivery, present perhaps the maximum of difficulties in the exact application of the precept.

Dr. AYER mentioned a similar case. Labor natural to the end of first stage; dangerous faintness then came on; ergot was given, and the child was born in somewhat over an hour, dead. The placenta was found floating, with many small-clots on the maternal surface.

Dr. HOMANS described a case of congenital purpura. The child was born with a few hæmorrhagic spots on its right wrist; similar spots appeared in rapid succession on different parts of the body, bleeding to a moderate extent took place from the mouth and umbilicus, and on the third day the child died, having constantly refused to take the breast. The placenta was in a state of fatty degeneration. The mother was in perfect health, but her only previous labor had been at the seventh month, with a dead child. The husband had had what he thought was syphilis, nine years previously, but without any manifest secondary symptoms. Dr. H. wished to inquire whether there was any known connection between syphilis and purpura.

Dr. MINOR observed that umbilical hæmorrhage often occurred in children of perfectly healthy parents.

Dr. AYER cited the instance of a patient, of whose first seven labors six were miscarriages, usually from the sixth to the eighth month. At the ninth labor she bore a living, healthy child. At the eighth the child was well-formed and healthy, but still-born; the circulation in the cord was almost cut off by the smallness of the vessels, owing to hypertrophy of the mucous tissue. The placenta had always looked healthy. The father has had syphilis, but the mother not.

Dr. CORRING inquired how often, in the experience of the members of this Society, occurred a necessity to use forceps for extricating the head after the delivery of the trunk. He quite recently had his first case of the kind. The patient was 36 years old; with her first child. The labor commenced about noon; he saw her at 8, P.M. The os uteri was considerably dilated, and dilatation; the soft parts lax. The liquor amnii had passed off gradually in the course of the afternoon. The breech presented with back to pubes. The pains were regular, strong, and forcing; yet the child advanced slowly, being evidently delayed by its own

size, and the smallness and firmness of the mother's pelvis. At 2, A.M., the labor progressing very slowly and beginning to tell upon the patient, a blunt hook was passed into the child's groin, and its advance aided in this manner. Nevertheless the body passed the pelvic bones with unusual slowness and difficulty, compressing the cord, which when first reached was pulseless. After the delivery of the trunk the head lodged, with face on the sacrum—the bones of the coccyx firm and unyielding. The chin was brought down without effect; and all manual attempts to extricate the head by changing its position and traction proved unavailing. The body was therefore held forwards and upwards by an assistant, and the forceps applied. The labor was thus terminated not without considerable difficulty. The perineum was not injured. The child was lost. Its weight was eight pounds. The patient convalesced rapidly, and without drawback of any kind.

The chairman, Dr. MINOR, and others, answered that they had never used the forceps in similar circumstances.

Dr. AYER related a case of shoulder presentation, in which he turned by the feet, and thus delivered all of the child except its head, for which the forceps was required.

Dr. PARKS quoted Pajot's caution against hasty traction, by which the occipito-mental diameter might be brought to a right angle with the axis of the pelvis.

Dr. ABBOT described a case of expulsion of an ovum with the hydatidiform degeneration. Hæmorrhage was almost constant during four and a half months following conception; and was *much more abundant upon lying down*. At the end of this period the uterus was artificially induced to contract. The ovum was of the size of an ordinary six-weeks' ovum.

In answer to a question from Dr. Lyman, Dr. REYNOLDS said that with most nipples he thought the best way of "drawing the breast was to use Thier's pump; called the "téterelle Thier."

Dr. ABBOT thought that a most important point in such procedures was to fit the nipple.

Dr. PUTNAM said that an instrument which alternately produced a vacuum and relaxed the nipple, was very successful.

Dr. LYMAN described the manner in which the child's tongue "strips" the nipple between its tongue and upper jaw, as a milker strips the cow's udder with his fingers. He had observed the operation in the mouth of an infant with hare-lip. He also related the case of a woman whose nipple was so

poorly developed as to be apparently on a level with the breast. After confinement the breast could not be evacuated; the consequence of which was an excessively troublesome abscess. In her next pregnancy the plan was adopted of breaking off the neck of an ordinary wine-bottle (with smooth lips), and binding it on to the breast in such a manner that the circular rim of glass pressed upon the areola around the base of the nipple. This was done for ten days preceding confinement, and the result was most satisfactory. Not only was a deep circular depression made around the nipple, but the latter became more elevated; and the success of the experiment was established by the ease with which the child when born accomplished the act of sucking.

Dr. WELLINGTON read the following paper.

June 25th, 1869. Mrs. E. G. S., æt. 28. Has an infant ten weeks old. Milk abundant, but, from birth, the child has vomited immediately after being nursed, and has apparently thrown up a large part of what it had taken. Latterly this vomiting has grown worse, and the child, who had never gained much, is losing what little it had gained. This is Mrs. S.'s fourth child. She has nursed all her children; the next older is  $4\frac{1}{2}$  years old.

Advised a discontinuance of nursing for a few days, as an experiment, and the feeding of the child on cow's milk.

The infant was nursed at noon of June 25th, and then put upon the bottle. The next two days the mother's breasts were drawn with a breast-pipe. The milk continued abundant; on the 27th inst., nearly a tumblerful was drawn at once.

About midnight of the 27th of June, Mrs. S. felt a severe pain in left arm and leg. The leg became painful as high as the knee, and felt stiff. At times the sensation was that of the limb when "asleep." To her surprise, the milk had entirely disappeared.

During the following day (28th), there was nausea, and the uncomfortable sensations in left arm and leg continued. On the afternoon of that day, an eruption of dark-red spots, about an inch in diameter, appeared all over the body, but more copiously on the left arm and leg than elsewhere, not extending, however, below the knees. In some places the spots ran together; in others they were distinct, and an inch or more apart. The eruption was accompanied with considerable fever; while it was out, the pain in the limbs, nausea, &c., subsided. After three hours the eruption suddenly disappeared; this was fol-

lowed by faintness and nausea, lasting till midnight.

The next day (29th), Mrs. S. felt better, but still had pain in limbs and some nausea.

June 30th.—In forenoon had chills and fever, pain in left leg and arm, and shooting pains through stomach, with nausea and vomiting. At 4, P.M., the milk returned "with a rush," and the various pains left.

July 1st.—Felt sick, as when milk is coming after confinement.

2d—Some headache and nausea; pain in arm and leg gone; milk abundant.

Since this last date, the breast-milk has continued abundant. The bad feelings of the mother, connected with the sudden departure of the milk, and its equally sudden return, soon disappeared. The child ceased its vomiting after commencing the use of cow's milk, and did not resume it upon leaving the artificial food, and entering upon the second edition of the *lac humanum*. It has thrived well, has passed safely through a severe attack of whooping cough, and has survived partial poisoning from an overdose of opium.

The noticeable things in this case are:—

1st, The sudden disappearance of the milk, and the return of the breasts to their natural condition after nursing had been intermitted for two days.

2d, The symptoms following this disappearance of the milk, viz.—the severe pain in the left arm and leg; the faintness and nausea; the cutaneous eruption accompanied by fever.

3d, The return of the milk on the third day, after premonitory symptoms.

4th, Its improved quality on its return.

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## Bibliographical Notices.

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*A Compend of Materia Medica and Therapeutics for the Use of Students.* By JOHN C. RILEY, A.M., M.D. Philadelphia: J. B. Lippincot & Co. 1869. Pp. 370.

This work, as the preface states, is not designed to be a full exposition of the subject, but a comprehensive syllabus, embracing outline descriptions of the articles and subjects named which the student may complete in the lecture room or by reference to the United States Dispensatory, or to the more extended text-books on the subject. It may serve as a guide to the beginner, pointing out the leading facts and

principles he is to study, while it may refresh the memory of the more advanced student or the practitioner of medicine. The classification adopted is that usually pursued in the lecture room, and the description of the medicines and the formula for the official preparations are principally compiled from the United States Dispensatory and Pereira's *Materia Medica*. The book is well printed on good paper, but is too bulky for the student's use in the lecture room. If it had been interleaved with blank pages in order that the rough notes of the lecture room might be distributed at leisure to their appropriate sections for future reference, it would be of much greater value to practitioners and students.

*A Course of Practical Chemistry; arranged for the Use of Medical Students.* By Wm. ODLING, M.B., F.R.S., &c. With Illustrations. Philadelphia: Henry C. Lea. Pp. 261.

THE American re-print from the fourth London edition of this valuable handbook of practical chemistry. The new system of atomic weights and formulæ has been employed throughout, and the analytical portion of the work, in so far as regards the description of the methods employed, has been re-arranged. No general changes have been made in the nomenclature.

## Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 16, 1869.

### FACE PRESENTATIONS IN PARTURITION.

IN a late number of the *New York Medical Journal* is an article by Isaac E. Taylor, M.D., Emeritus Professor of Obstetrics, &c., in Bellevue Hospital Medical College, New York, on the *Spontaneous and Artificial Delivery of the Child in Face Presentations, with the Chin posteriorly*.

Dr. Taylor concludes his remarks with the following propositions:—

"1. That mento-posterior positions of the face are the most frequent; that spontaneous delivery may be accomplished as easily, readily, and safely, as in mento-anterior cases; that rotation of the chin forward to the pubes can occur, even though the face has descended into the excavation, and sometimes just as the child appears to be born.

"2. That these cases may be delivered spontaneously—by cephalic version in the pelvis, and by the passing also of the child's face over the perinæum, the chin appearing first. In other cases, the occiput may emerge from under the pubes *first*.

"That if rotation of the chin anteriorly cannot be accomplished naturally, nor by artificial resources, I propose first the *division of the perinæum laterally*, on whichever side the chin presents, and before craniotomy is performed.

"That should the natural powers of the uterus not effect delivery even after division of the perinæum, the application of the long *straight* forceps should be resorted to in preference to the curved, and the direction of the traction should be made directly downward and backward."

Although Dr. Taylor's first proposition would indicate the contrary, we have been taught that the *position* of the head in face presentations is a matter of great importance; and some of the citations he has made show that he has eminent authorities against his view. The general tenor, also, of his remarks and the bold treatment he recommends in his paper are not quite in harmony with the statement above "that spontaneous delivery may be accomplished as readily and safely as in mento-anterior cases."

Let us start with a clear apprehension of the point in discussion. We are wont to say that in vertex presentations the most favorable *position* of the head for delivery is with the occiput forwards; and that when that part of the foetal cranium is directed backwards its descent is less easy. The principal reason is obvious: the shape of the child's head, in the first case, corresponds, in its passage through the pelvis, with the curve of Carus; in the second case it does not. In face presentations, however, the situation is changed.

In face presentation we have the same variety of positions as when the vertex is the presenting part. But, it is usually taught that when, in face presentation, the occiput is *anterior*, the obstacles to delivery are much greater than when it is directed backwards. Let us follow some of Dr. Taylor's quotations:—

"Cazeaux has remarked that 'they [mento-posterior cases] are at term one of the most difficult in the obstetric art to treat.'

"Chailly: 'This is impossible to be delivered unless the face should change its position anteriorly.'

"Hodge: 'In truth the child must surely perish, and craniotomy be performed if the child is dead.'

"Churchill: 'The older writers describe the head as emerging from the lower outlet, in face presentations, with the chin posteriorly. A moment's consideration will show that this is an *impossibility mechanically*.'

"Capuron and Mesnard have endeavored to prove on geometrical principles that delivery by the face in any position is impossible without artificial aid.

"Velpéau, who entertains favorable views respecting the internal mechanism of the face in the pelvis, says:—'The posterior position of the face: I consider it *impossible* for the chin, which must always appear first at the vulva, to descend in this attitude as far as the anterior edge of the perineum, unless, as Desormeaux remarks, the fetus be an abortion, for the breast would then be entirely within the pelvis at the same time as the head.'

Dr. Taylor adds:—

"I have quoted from these various authors the views which they entertain on this important subject. To assert with those to whom Naegle refers, that the mento-posterior positions are common with the child born with the chin posteriorly, would be very wide of the fact, and would claim a denial from almost all obstetricians at the present day."

We well remember that Pajot, who, as it was understood, reflected accurately the views of Dubois, used some years ago to instruct his private classes that the deviation in question was of the most serious nature.

Cazeaux states that face presentations occur in the proportion of one in 250 to 300 labors. Dr. Taylor mentions his experience with such presentations thus:—

"The positions I have usually found are:

1. The mento-posterior position, with the chin to the right sacro-iliac synchondrosis.
2. The chin anteriorly to the left acetabulum, the reverse of the first. There were twenty-seven cases of the first, fifteen of the second, and two transverse—forty-four cases in all. In one case there were twins, both face presentations.

"The child therefore presents itself in the oblique position in the superior strait, passes down obliquely into the cavity of

the pelvis, and is born, most generally, in the oblique diameter at the ostium vaginae; for, out of one hundred and twenty-five cases of cranial presentations, which I have marked by nitrate of silver on the vertex to test the obliquity of the child when born, one hundred and five were oblique, the rest antero-posterior; and this is the view entertained by Naegle of the oblique position of the head, and assented to by others. The face follows the same law. Lachapelle, Tyler Smith and Chailly admit the greater frequency of the mento-posterior positions."

We will glance, now, at the why and wherefore of the alleged difference in favor of the *mento-pubic* position in face presentation. We have mentioned that in *vertex* presentation the mento-pubic position—that in which the occiput is directed posteriorly—is disadvantageous, because in that case the shape of the fetal head is ill-adapted to the passage through which it has to be expelled. This position is undoubtedly disadvantageous also in face presentation for the same reason. But, this difficulty is far from insurmountable, in that the head being compressible is capable of being moulded into such form as to allow of its descent. And the mento-pubic position has this great advantage in face presentation, that as the face sweeps the sacrum, and makes the curve of Carus, the head becomes more and more flexed and disentangled from the fetal body, by which it is *followed*, and not *accompanied*. In other words, the chin may take a more or less fixed stand at the pubis while the face and occiput sweep the sacrum before the body fairly enters the pelvis.

On the other hand, let the occiput, *directed forward*, be detained at the brim, while the chin is forced into the hollow of the sacrum, and the shoulders are arrested at the brim, the head being extended till the occiput approaches the fetal spine. Now as the head and shoulders can hardly pass the upper strait together, there is here an arrest of the delivery—a bad form of face presentation. Each uterine contraction aggravates the extension—brings occiput and shoulders nearer together, but does not advance the labor.

Dr. Taylor enumerates the different methods of treatment adopted at the present day, as follows:—



"1. Relying upon nature to effect the delivery either by rotation of the chin anteriorly, or by cephalic version in the pelvis changing the face into a natural presentation."

In endorsement of this attitude of the obstetrician, he makes quite extended remarks, from which we take two passages:—

"No one at the present day doubts that face cases are not delivered as naturally as cranial presentations. The only doubt existing in the mind of the profession is, that but very few cases require instrumental or artificial aid, and the opinion of the highest authorities is that mento-posterior positions are not even delivered naturally when the face occupies the excavation, unless nature may effect the rotation of the chin forward. Previously I have shown that the mento-posterior positions of the face are the most frequent, and that the face is oblique. That Nature, in a large proportion of cases, accomplishes her object by rotating the chin anteriorly as readily as she does in the occipito-posterior cases. Cazeaux has asserted that rotation must and does take place before the child's face has reached the floor of the inferior strait, as the neck of the child will not admit of extension low enough in the pelvis, on account of the chest not being able to enter the pelvis with the occiput pressed into the posterior part of the neck or between the shoulders. Tyler Smith considers that rotation is always accomplished, principally when the chin reaches the ischiatic spine. Should rotation not occur at this period of labor when the face reaches the inferior strait, it is deemed an impossibility for the child to be born in that position if the chin points either directly to the sacrum, or obliquely toward one of the sacro-iliac synchondroses. For my own part, I do not consider there is any reason why this class of cases should be so perfectly ignored and considered as impossible or absurd, nor why craniotomy must be resorted to more than in occipito-posterior positions when the child is born with the forehead front and the chin escapes under the pubes, or that these occipito-posterior cases may become face cases just as the child is being born. Boivin has seen one case of this nature, Bedford another, and Morcau claims two cases. I cannot forget a case of this nature where the forehead of the child was pressing upon the pubes and the pelvis of the mother was ample, as the head of the child was resting in the pelvis low down, and before the cervix became dilated. After complete dilatation the fore-

head was pressing under the lower part of the pubes, and it seemed then it would be too late for rotation to occur, as every pain appeared only to wedge the head more perfectly in the excavation, but in a few minutes the child was extruded, complete rotation having taken place with the occiput anteriorly. On the contrary, I have never seen a case where the occiput was posterior, and was delivered in this manner either naturally or artificially, which is a rather unusual experience. Is Nature to be ignored? Certainly not. Who has not seen, and that too very unexpectedly in shoulder presentations, when the shoulder is dipping deep into the pelvis, and it would appear to be utterly impossible for the child to be born unless visceration were performed, the shoulder become more firmly fixed than ever, and spontaneous evolution taking place, and the child delivered in a few minutes by the breech? My impression is that the views of Naegle and some others have allowed the ordinary measurements of the child's head to square with the usual measurements of the pelvis of the woman. They have thus, in a great degree, set aside the spontaneous delivery of the child in face presentations with the chin posteriorly, and if not rotating round, and the forceps should not succeed, resort to craniotomy." \* \* \*

"The head of the fœtus, when born by the vertex, is lengthened in the longest or diagonal diameter, that is, from the chin to the vertex; the vertex is the highest point toward which the roof of the skull forms a gradually inclined plane from the forehead. The diagonal diameter surpasses ordinarily the straight one from forehead to vertex one inch, so that the two diameters form two lines which, when the head is looked at in profile, makes an irregular triangle.

"The occiput of a child born in face presentations appears drawn out or lengthened solely in the direction of the straight diameter; the roof is but slightly arched, being quite flat, and ends in a sharper angle at the forehead. The difference between the straight and diagonal diameters disappears, and the two lines drawn from forehead to vertex, and from chin to vertex, form nearly an isosceles triangle. The head from the arching of the roof and occiput toward the side of the pelvis which it presents to, being straighter than the posterior part of the pelvis which is concave, obstructs the descent, and through protracted uterine contraction the neck is more stretched, and the occiput approaches the back. The skull is flattened and the head has in this manner lost its height, its vertical diameter has de-

creased, and so finds room in the pelvis, and by further uterine contraction passes into the excavation, and the rotation is effected even if the forehead with the anterior fontanelle presents, and, as it were, on the point of being delivered."

By this explanation is shorn of its formidable proportions (as for this conjuncture) the *occipito-mental diameter*, which in the usual shape of the head, and with the ordinary sizes of fetus and pelvis, is too long for brim or outlet, and which, when thus it antagonizes, renders impossible, delivery.

Dr. Taylor subsequently cites two cases of face presentation: mento-posterior position; *rotation* and delivery by the natural powers. He adds:—

"Braun, in the *Monatschrift für Geburtshülfe*, February, 1861, "On a rare Mechanism in Face Presentation," describes a case in which a mature child, presenting by the face with the chin on the perineum, was delivered by the natural powers in this position. After the birth of the head the back of the child remained directed forward. The child was born dead.

"Dr. Hodge has also referred to a case where the slightest pressure of the finger on the chin, though the head was low down in the pelvis, caused the chin to rotate anteriorly.

"Smellie, in 1748, says:—'I was called to a woman in labor, by a midwife, who told me she found the opening of the child's head below the share bones and with the forehead to that point. On examination, I plainly distinguished the face and the chin backwards at the coccyx. In two pains more the face and forehead passed toward the posterior part in the form of a large tumor; the perineum and fundament were greatly lengthened and the vertex and occiput slipped out from under the pubes; the face and forehead turned up from the perineum, and the woman was delivered of a small child.'

"In Braun's case the face was delivered posteriorly over the perineum—that of Smellie from under the pubes, showing that even in this position the child may be born, and therefore delivery is not an *impossibility*. The vulva may be lengthened immensely—as I have seen in a case of double monster, where the whole back presented, and yet no rupture occurred—fully six and a half inches, as was verified by my friend Dr. Stone. The case of Braun shows that the opinion as laid down by Guillemot proved correct, who says the forehead may continue

to descend and to engage under the arch of the pubes, until the anterior fontanelle appears at the vulva and reaches the border of the perineum, then the process of extension commences.

"The presentation by the face may be converted into one by the vertex. Velpeau remarks that the forehead engages behind the body of the symphysis pubis, while the chin gets below the sacro-vertebral angle. The whole head descends into the excavation beyond the anterior fontanelle from the anterior plane, and the face drags after it the front surface of the neck, and *even the upper part of the chest*. The *occipito-mental diameter*, which still presents very nearly the axis of the strait, now begins to perform a *see-saw* movement from above downward and from behind forward. The chin penetrates farther and farther to the bottom of the excavation, though at the same time retained by the thorax, which cannot advance, forces the sagittal suture to slip down behind the pubes, and the forehead to gain the upper part of the inferior strait. The frontal protuberance soon finds a point of resistance on the perineum, and the posterior fontanelle descends in turn, and ultimately appears at the summit of the arch as in occipito-anterior positions. Guillemot attested to the same view. Merriman has also asserted that he has seen two cases, where the chin was placed posteriorly, converted into occipito-anterior natural positions."

"2. Artificial cephalic version before the face has engaged in the superior strait. This comprises both internal version and version by external manipulation."

Of this manœuvre he says:—

"I have attempted it several times, and although I have accomplished the flexion (I speak of primitive cases) while the face is in the superior strait, or still within the cervix, I have never yet seen a case where it retained its flexed position, for it would always return to the normal extended position."

"3. Podalic version.

"4. Artificial rotation—*a*, by the hand or fingers; *b*, by the vectis, or by the right-angled blunt hook; *c*, by the long curved forceps acting as rotators and tractors.

"5. Craniotomy—but before the performance of craniotomy I propose,

"6. Division of the perineum laterally, and afterward the use of the *straight* forceps instead of the curved."

Under the last of these heads he says:—

[When other expedients are not applica-

ble or do not avail] "Are we prepared to say that *craniotomy* alone remains, as this is the *next* procedure recommended to be adopted as the *dernier ressort*? To obviate this unfortunate step, I now pass to the last division of the different points I have presented for consideration, which is the *division* of the perinæum laterally on the side to which the chin is directed.

"Previous to entering on this point, I will report some cases showing that, with the chin posteriorly, by the aid of the forceps it is possible for the child to be born without resorting to *craniotomy*, independently of the measure I adopt."

Having quoted three cases of the kind referred to, he proceeds thus:—

"As a substitute for *craniotomy*, therefore, even before the patient has become exhausted, and obeying the imperative law which experience has demonstrated, that every hour after twenty-four hours' delay in the delivery of the mother under adverse symptoms imperils her welfare and tends to sacrifice her life and the life of her child, I consider it imperative to avoid *craniotomy* and endeavor to save the mother much earlier than is usually done. I propose, as I stated above, *division of the perinæum laterally*. The operation has, in some instances, been suggested on account of the large size of the child's head, and for a lengthened perinæum when laceration is inevitable. It is true the cases demanding this operation were not ordinary, and so are cases of face presentation of the nature under consideration. Michaelis recommended it, and Siebold approved it in vertex presentations with large heads and elongation of the perinæum. Ritgen took the same view, but never performed it either in hospital or private practice. Blundell advocated and practised only slight incisions, which were to be made laterally, and done during a pain. Paul Dubois divided the perinæum when necessary, directing the oblique incision. Chailly coincides, of course, with the suggestion of M. Dubois. Busch thinks that these incisions should be confined to cases of organic anomalies only. It is admitted that the cases are rare which would demand such an operation, but the rarity of the especial cases under consideration shows the merit of the operation and claims the performance of it, not only for the sake of the child, but also for the mother. The objection of some, that the incision once started may soon be converted into a tear extending even to the anus, is futile. On the contrary, it is to avoid this deplorable

issue of producing vesico- and recto-vaginal fistulæ, and the laceration of the whole anus."

Two cases are subsequently related in which delivery was effected by division of the perinæum, the child in each case being born dead. The result as to the mothers is not stated.

On the whole, we think Dr. Taylor has succeeded in showing that there is less to fear, even in the worst form of face presentation, than has been frequently supposed; though we must repeat that his first proposition, to our mind, underrates the difficulties of the situation.

LUNATIC ASYLUM.—Mr. Snow, of Ward Eleven, presented the following communication as supplementary to the report made by Mr. S. C. Cobb on a site for a Boston lunatic hospital.

[COPY.]

3 PEMBERTON SQUARE, December 7, 1869.

Samuel C. Cobb, Esq.:—

Dear Sir,—I see from your minority report and what you have been doing in the city council that you are opposed to building a new hospital for the insane at Winthrop. I agree with you; and as I have a very deep interest in the management of the insane, and a citizen's interest in the expenditures of the city government, I take the liberty of addressing you upon the subject.

I have lived a part of nearly every year, for twenty years, in Winthrop, not far from the Winthrop farm, so called, on which it is proposed to build the asylum. I have walked, ridden, or driven many times in almost every month of the year along the side of the hill, and have walked over it, and am perfectly familiar with everything about it.

The climate of Winthrop, during the summer months, is very healthy and delightful. But every part of Winthrop is necessarily, from its exposure, very windy. At my house, on ground only thirty feet above the sea level, the winds are always fresh, and in the winter excessively violent. We tried one winter's residence there, and found it, almost constantly, so boisterous, that it was seldom agreeable to take a walk, and the wind often so strong as to make it nearly impossible for a woman to walk at all.

On the top of the hill, on the Winthrop farm, the air is delicious in the hottest days of July and August, and in the soft weather of early autumn, and the prospects are very beautiful. A person visiting it on such a

day, might think it a charming situation. But on almost every day in the winter half of the year, the winds, from whatever quarter, are so furious that a person who has been once there at that season, would not willingly consent to go again till next summer, even for a climb or a look!

The top is absolutely unprotected. The northwest wind dashes upon it, coming over several miles of unbroken water and marsh. The north and northeast winds come upon it over nearly the whole length of Lynn Bay, and the east winds reach it after sweeping over the whole extent of Massachusetts Bay. I never saw a place more unfit to build anything upon but a light-house or a beacon; and if it were built upon for human habitation, there are few days in the winter when it would be safe for any but a strong man to walk out. There is scarcely a vestige of a tree there, and it would cost tall fences and high walls and vast trouble and expense to plant trees there.

The site selected for the asylum could be reached only by a long, winding road, which would have to be protected from the winds by lofty walls on each side. Building on that elevated spot would be greatly more expensive than on the plain, as every block of stone, every piece of timber, and the daily supplies for the builders, and for the inhabitants of the house when built, would have to be really lifted upwards to a perpendicular height which would require the expenditure of more force, probably, than would be required to convey those materials from Boston to the foot of the hill. At the foot—and on the lower slopes—of the hill, it would doubtless be easy to find water. But it is so excessively steep on two sides, that it looks as if it would be impossible to get water in any part of the top, and it would have to be pumped up from a distance, at great and perpetual expense. Fountains, gardens, shrubbery, are all wholly out of the question, forever.

No person who had been on the top of that hill in a storm in winter would ever think of building a residence there; and I cannot think of a sane person's thinking of it as a suitable site for any building for human habitation, unless he had visited it only in the pleasantest season of the year, and had utterly forgotten the six or seven months during which it must be as bleak, boisterous and inhospitable as Greenland.

I once took Miss Dix, who is as much interested in, and as well acquainted with, everything which relates to hospitals and asylums for the insane as any person living, to the top of this hill. We talked the whole

matter over then and there; and I know that she entirely agrees with me in everything I have here said.

Earnestly hoping that a more suitable site may be chosen for the contemplated asylum,

I am yours, respectfully,  
(Signed), GEORGE B. EMERSON.

The communication was laid on the table and ordered to be printed.

Once upon a time a body of officials went to visit the Winthrop farm, to see about the fitness of the place for crazy people. It was a lovely summer's day—the 15th of July or August, we believe. All spoke in praise of the then charming spot—save one who kept silence. Finally that one was appealed to for his opinion by the chairman of the occasion. My opinion, said the hitherto silent one, I am not now prepared to give. But, if you will all meet me here on the fifteenth of January next, I will express it at that time.

ETHER VS. CHLOROFORM. *Mr. Editor,*—Two years ago, while listening to some remarks to his class by Prof. W. W. Greene upon anaesthetics, I made a note of the following, which, in connection with the frequent reports of deaths from chloroform, I should like to see in your JOURNAL.

M. A. C.

Portland, Me., December, 1869.

"No man can hesitate a moment with regard to the comparative safety of ether and chloroform. The simple fact is that chloroform frequently kills, and, so far as we know, ether never does. The published reports of deaths from chloroform in the various medical journals average *nearly two a month*, while there is not a well-authenticated case of death from ether on record. With a knowledge of this fact, and also knowing that the majority of these cases have occurred in the hands of skilled and cautious men, the fatal result often taking place during the performance of a trivial operation or before it was begun, I could never feel justified in exposing a patient to the risk of chloroform. During the several years in which I used it I had no trouble, except that in a few instances it so depressed the circulation that I was obliged to withhold it; but no surgeon is justified in quoting his own fortunate exemption from accident as a justification for the use of this agent when in the hands of other men of equal skill, caution and experience, patients, who to the most careful scrutiny

present no contra-indication, do every now and then die as if by lightning stroke. With my present convictions upon this subject, if I should lose a patient under chloroform administered upon my own responsibility I should, in my own conscience, be held guilty of murder. As to mixing the two, I can only say that the more chloroform the more danger, the more ether the greater safety; and I do not believe that any patient can withstand the influence of pure ether administered according to the directions I have given you. In army practice the imperative necessity for economy both in time and transportation probably justifies the selection of the less bulky and more prompt although dangerous agent, especially in field practice, but I wish to put you on your guard in this connection. It has been asserted over and over again that the abundant statistics of military surgery, both in Europe and America, fail to show any fatal results from chloroform. I am surprised that these statements should pass unchallenged, for in the Peninsular campaign and during Gen. Grant's operations before Richmond, I saw several instances in which I feel sure that the death of the patient upon or immediately after removal from the operating table was due to chloroform; and although the attending surgeons referred the result to "shock," superadded to previous exhaustion, my own opinion was corroborated by that of other competent observers; and I firmly believe, both from these cases and from the somewhat unwilling admissions of certain army surgeons made to me personally, that a thorough and impartial analysis of statistics would show many fatal results from chloroform in military practice.

"The only condition in which chloroform is safe is that of *pain*. As intense suffering neutralizes the effect of opium, so do the pangs of parturition or the terrible twinges of a *tic douloureux* balance the depressing influence of this powerful anæsthetic; and in such cases its use to the point of relief, and no further, is safe."

#### DEATHS FROM CHLOROFORM.

THE *British Medical Journal* for October 2d, 1869, contains the following report of a death from chloroform which occurred at the Croydon Hospital Sept. 15th last:—

C. F., a married woman, aged 52, was admitted on August 28th. \* \* \* To cleanse the wound [sloughing in the region of the patella] and stop the unhealthy ulcerative process, it was resolved to apply nitric acid to the wound; and chloroform was admin-

istered for that purpose on Wednesday, September 15th. Dr. Skinner's apparatus was used, and the drop-bottle, which, by inversion, holds about half a drachm. This was replenished three times. Altogether, two drachms of chloroform was the quantity inhaled. From three to four minutes elapsed before the stage of excitement came on, which lasted three minutes longer. There was no third stage of complete insensibility, such as usually occurs, for the proper performance of a surgical operation; but she died instantly, without the slightest warning, immediately after muscular action. Marshall Hall's method, the Silvester method, and galvanism, were severally had recourse to. The last gave some slight hope of benefit, as the arms were raised, and the hands applied to the mouth; and the diaphragm acted twice, with two corresponding acts of inspiration. But this did not continue; and further efforts at resuscitation were, with regret, abandoned.

No *post-mortem* examination was allowed.

A boy, aged 12, employed in the Cwm Neol Coal-Works, was injured on August 22d by being knocked down and run over by a coal train. Some weeks after the accident it was, for the first time, found that he had dislocation of the hip. Dr. Davies resolved in attempting reduction. Chloroform was given on a handkerchief, in doses of twenty to thirty drops at a time. The operators had been pulling at the ropes, when it was noticed that the pulse was failing; and the boy immediately died. He had been under the influence of the chloroform about twenty minutes, and two drachms had been given. As far as regards the chloroform, no blame appears to lie with any one concerned in the administration.—*British Medical Journal*, Oct. 16, 1869.

During the year we have recorded in this journal twenty-five cases of death from chloroform. Commentary upon these figures is unnecessary. Remembering the comparatively insignificant number of alleged deaths from the inhalation of ether recorded since its introduction to the present time, and that there is not one of these "which cannot be explained on some other ground equally plausible" (Rep. of Ether Comm. of Bost. Soc. for Med. Improvement; Extracts from *Record*, vol. iv., Supplement, p. 216)—a statement undoubtedly not true as regards chloroform—we must indorse Prof. Stillé's remark (*Mat. Med. and Therap.*, vol. ii, p. 115, 3d ed.) that "the surgeon who employs it [chloroform] assumes a responsibility of life and death for which neither his office nor the moral law afford him any license."—*Medical News and Library*.

## Medical Miscellany.

**OBITUARY.**—Dr. Benjamin F. Heywood, of Worcester, Mass., died suddenly on the 7th instant. Though he enjoyed comfortable health to the time of his decease, he was known to have cardiac disorder. Dr. Heywood was born April 24th, 1792, and was at his death the oldest physician in Worcester, having for the past few years retired from active practice. He graduated at Dartmouth College in 1812, and then attended the medical lectures of Dr. Nathan Smith at Dartmouth and Yale Colleges, taking his medical degree at New Haven in 1815. He was in partnership with the late Dr. John Green for twenty years. In 1865, the fiftieth anniversary of the commencement of his practice was celebrated. Dr. Heywood had been a Censor and a Councillor of the Massachusetts Medical Society. He also succeeded his father, Captain Benjamin Heywood, as a member of the Society of Cincinnati.

**NEW APPLICATION TO ULCERATED SURFACES.**—A solution of xyloidine and tannin in ether is praised by Dr. Richardson, of London, as an application to uterine ulcerations—so called. Dr. Richardson says this combination rapidly cicatrizes ulcerated or raw surfaces, and that it acts as an antiseptic by reason of the tannin it contains.

**DR. RICORD.**—This distinguished specialist has received a gratifying mark of imperial favor. Like M. Nélaton he has been made a Senator. He has also lately received from the Emperor, in connection with a cordial letter, thanking him for his attention during his recent illness, a gold snuff-box, ornamented with diamonds, valued at 20,000 francs. The messenger who carried the present took back the answer that the autograph letter would have been prized just as much without the elegantly jewelled envelope.—*Med. Times and Gazette*, and *Lancet*, Nov. 27, 1869.

**DR. PAUL SCHIEFFE.**—The case of this individual, now under sentence of death for the alleged murder of Miss Steinnecke by prussic acid, in Pennsylvania, has excited unusual attention through the country, and is more particularly interesting to the medical profession on account of the main evidence against the prisoner having come from medical experts. A meeting of the physicians of Washington, D. C., was held on Saturday last, at which nearly all were present, and after a full discussion of the subject, resolutions and a memorial were adopted—stating the grounds for belief that the death was a natural one, and soliciting executive clemency in the case.

In Dr. Richardson's lecture, delivered on Tuesday last, he showed that hydrate of chloral produces sleep when administered as an enema as well as when given by the mouth or introduced subcutaneously. He also showed that butyl alcohol and chloride of amyl, when injected under the skin, produce a deep sleep similar to that from chloral.—*Medical Times and Gazette*.

The number of deaths in the city of Providence, R. I., during the month of November, 1869, was 110. Consumption caused 24 deaths, pneumonia 6, typhoid fever 6, and smallpox 3.

**ERRATA.**—Page 336, 1st column, 6th line, for "greater" read *less*. In 2d paragraph, 2d column, page 319 of our issue of Dec. 2d, instead of "any other man," read *most other men*.

**TO CORRESPONDENTS.**—Communications accepted:—Abscess of the Liver.

**BOOKS AND PAMPHLETS RECEIVED.**—A Winter in Florida; or Observations on the Soil, Climate and Products of our Semi-tropical State; with Sketches of the Principal Towns and Cities in Eastern Florida, &c. &c. By Ledyard Bill. Illustrated. Second Edition. New York: Wood & Hollbrook. Pp. 222.—The Physician's Handbook for 1870. By William Elmer, M.D., and Albert D. Elmer, M.D.—Annual Report of the Surgeon-General, U. S. Army. 1869. Pp. 12.—On the Wasting Diseases of Infants and Children. By Eustace Smith, M.D. Lond., Member of the Royal College of Physicians, &c. Philadelphia: Henry C. Lea. Pp. 196.—Reports of the Trustees and Superintendent of the Tennessee Hospital for the Insane, presented to the General Assembly Nov. 17, 1869. Pp. 50.—The History of nine Cases of Ovariectomy. By T. Gaillard Thomas, M.D., New York. From Bellevue and Charity Hospital Reports. Pp. 28.—Biographical Sketch of the late A. B. Shipman, M.D., of Syracuse, N. Y. Read before the Onondaga Medical Society by H. O. Jewett, M.D., Cortland, N. Y. Pp. 12.

**MARRIED.**—At East Somerville, 9th inst., Dr. A. A. Howland of Barre, to Miss Emma Lane, of E. S.

**DIED.**—In Dover, Me., November 20th, Dr. Benjamin Johnson, aged 67 years.

**Deaths in nineteen Cities and Towns of Massachusetts for the week ending Dec. 11, 1869.**

Cities and towns.	Number of deaths in each place.	Consumption.	Prevalent Diseases.	neumo-nia.	Typhoid Fever.	
Boston . . .	104	17	14	3	0	
Charlestown .	7	1	0	0	0	
Worcester . .	17	4	1	3	0	
Lowell . . .	18	4	3	2	0	
Milford . . .	1	0	0	0	0	
Chelsea . . .	8	2	0	1	0	
Cambridge .	14	1	1	0	0	
Salem . . .	11	2	2	1	0	
Lawrence . .	3	0	0	0	0	
New Bedford	11	0	0	1	0	
Springfield .	6	2	0	2	0	
Pittsfield . .	3	1	0	0	0	
Gloucester . .	8	0	1	1	0	
Fitchburg . .	3	0	0	0	0	
Taunton . . .	6	1	0	0	0	
Newburyport	5	1	2	0	0	
Somerville . .	2	0	0	0	0	
Fall River . .	16	3	0	0	0	
Haverhill . .	4	1	0	1	0	
	247	40	21	15	00	

New Bedford reports 4 deaths from whooping cough. Boston reports 5 and Lowell 2 deaths from scarlet fever.

GEORGE DENNY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON for the week ending December 11, 104. Males, 50—Females, 54.**—Abscess, 1—accident, 3—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—inflammation of the brain, 2—bronchitis, 3—burns, 1—cancer, 1—consumption, 17—convulsions, 3—croup, 1—cystitis, 1—debility, 1—diarrhoea, 3—epilepsy, 2—erysipelas, 1—scarlet fever, 3—typhoid fever, 3—disease of the heart, 2—intemperance, 1—disease of the kidneys, 2—disease of the liver, 1—congestion of the lungs, 2—inflammation of the lungs, 14—marasmus, 4—old age, 3—paralysis, 2—peritonitis, 2—premature birth, 1—puerperal disease, 1—suicide, 1—syphilis, 1—tetanus, 1—tumor, 1—ulcers, 1—unknown, 10.

Under 5 years of age, 30—between 5 and 20 years, 6—between 20 and 40 years, 21—between 40 and 60 years, 29—above 60 years, 18. Born in the United States, 55—Ireland, 30—other places, 19.

THE

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## Original Communications.

### A CASE OF STRICTURE OF THE LARGE INTESTINE THE RESULT OF ULCERATION. DEATH FROM PERFORATION. AUTOPSY. REMARKS.

By JOSEPH G. PINKHAM, A.M., M.D., Lynn, Mass.

THE patient was a married lady, aged 60, the mother of two children. She described herself as being by inheritance of a delicate constitution. Her mother and one brother died of consumption. An aunt died of cancer of the bowels. Father afflicted with asthma. For many years previous to the occurrence of the abdominal disorder she was obliged to be careful of her diet, and had frequent attacks of acute indigestion, attended with vomiting and headache. She was also much subject to constipation, and to relieve this condition had been accustomed to rely upon mercurial and aloëtic purgatives, their effect being, in her estimation, very beneficial. With the exception of an attack of erysipelas at the age of forty-five, she never had any serious acute illness. In the month of December, 1867, after attending an evening lecture, in going to which she was somewhat exposed to cold, and partaking of old cheese, an article of food that always disagreed with her, she had a severe attack of colic, so called at the time, characterized by great flatulence, obstinate constipation, vomiting (not stercoraceous), and pain of a paroxysmal, gripping kind. The distention of the bowels was excessive, and the patient became much reduced in strength from the almost constant vomiting. An evacuation of the bowels, however, occurring spontaneously, after the lapse of two weeks, gave relief, and recovery took place. The patient enjoyed her usual degree of health for upwards of a year, until February, 1868, when a second attack occurred, altogether similar to the first, the period of intestinal inaction being about ten days. Recovery from this was less complete than before, and subse-

quently the attacks occurred much more frequently, although with no regularity either as regards the intervals, duration, or severity. Abundant mucous discharges were occasionally observed. At times, though rarely, they were tinged with blood. She was under the charge of several different physicians, who gave varying opinions as to the nature of her disease. One considered it to be essentially flatulent dyspepsia, and treated her accordingly. Dr. Warner, of Boston, who saw her in the fall of 1868, diagnosed an enlarged liver, and gave hepatics with evident benefit. Dr. H. R. Storer at the same time determined the existence of an hypertrophied condition of the descending colon, the fact being ascertained by palpation when the abdominal walls were completely relaxed, and the intestines empty. Both these gentlemen were of the opinion that her severe attacks were caused by, or consisted in, a spasmodic contraction of the circular fibres of the muscular tunic of the intestine, brought on by exposure to cold, over-fatigue, acute indigestion, &c., conjoined with a condition of chronic inflammation or irritation of the mucous membrane lining the colon. I should mention that hæmorrhoids existed, and were at times quite troublesome, a fact which went to confirm, perhaps, the existence of hepatic disease. Dr. Storer made a careful examination of the pelvic organs, and discovered nothing abnormal. In the winter and early spring of 1869 she was under the charge of Dr. Hutchins, of West Acton, Mass., who concurred in the view that the most prominent element of the severe attacks was spasm of the intestine.

At the first, resort was had to injections of laudanum to control the pain, but all measures for her relief, whether enemata, cathartics given by the mouth, hot fomentations to the abdomen, the warm bath or other means for producing an evacuation of the bowels and relaxing spasm, were only partially successful, and no course of treatment pursued in the intervals was able to ward off the attacks.

I first saw her on the 17th of April, 1869.

[WHOLE No. 2186]

The following extracts from my note book will show her condition at that time, and the progress of the case.

"Patient about house and comfortable. Looks wan and anæmic. Tongue bare, red, tender, and slightly fissured. Eyes sunken. Pulse feeble, 100 and upwards per minute. Appetite tolerably good. Craves acid, and is very thirsty. Stomach irritable. Faecal discharges frequent, dark-colored, and liquid, with occasional lumps of white matter, and pieces of thin, brown membrane. Complains of frequent puffing up of the left colon, attended with borborygmi and pain. The distention and pain always begin in the region of the sigmoid flexure of the colon. On careful palpation of the abdomen, no tumor of any kind can be discovered, but the lower part of the descending colon can be felt as a soft rope under the fingers, and the edge of the liver as a hard ridge below the ribs. Specimens of urine and faecal matter sent to Dr. James C. White, of Boston, for analysis.

"April 18th.—Dr. White reports examination of urine and faecal matter as follows: 'Urine contains a trace of albumen, hyaline casts of the tubuli without contents in great abundance, epithelial debris, and a large number of crystals of oxalate of lime; faecal matter—result negative.'

"April 27th.—Patient has been suffering somewhat since last visit with pain, swelling up of bowels, especially of left colon, borborygmi and constipation, followed by loose discharges giving relief. Solid faeces always small—not more than one-half inch in diameter. Last free evacuation on the 24th inst. Found the bowels tympanitic and tender, distention most marked in descending colon. Pulse as before. No vomiting; tongue improved in appearance, less thirst, general strength increased. Tried to pass a long flexible stomach-tube a little more than one-fourth inch in diameter up into the bowels; it passed up some fifteen or sixteen inches, and then bent upon itself four inches from the end. Injected through it warm flax-seed tea Oiss., which was retained but a few minutes, some faecal matter and flatus coming away with it. A small rectal tube one-half inch in diameter was then resorted to. This passed in about ten inches, when the patient complaining of pain, further introduction was not attempted. Another injection was given, and the patient passed upon her back with the hips elevated and compress over the anus, but she could not retain the liquid long."

After seeing so much of the case, I was decidedly of the opinion that there existed a

permanent stricture, or narrowing of the calibre of the intestine, at or near the sigmoid flexure of the colon; that this narrowed place frequently became clogged by faeces, solid masses of undigested food and tenacious mucus; that there was a very bad form of flatulent dyspepsia, with hepatic disease of some kind. I admitted the possibility of spasmodic action of the intestine, but could not see decided proof that such was the case. The discharge of mucus sometimes tinged with blood showed the mucous membrane of the colon, for a portion of its extent, at least, to be in a condition of chronic inflammation, so-called, with the presence, perhaps, of ulcers. The blood, however, could be accounted for by the hæmorrhoids. Renal disease, proved to exist by the careful examination of the urine which had been made by one in every respect competent, had not yet manifested any of the ordinary symptoms. Whether it were primary or secondary, or whether it had anything to do either in causing or aggravating the abdominal disorder, I am unable to decide.

The plan of treatment which I adopted after arriving at my diagnosis, was essentially as follows:—1, A strict regulation of the diet, allowing only the most nourishing, concentrated, and easily digested articles of food, chiefly in a liquid form—such as eggs, milk, beef tea and broths, wheat bread, &c. 2, The administration of nitro-hydrochloric acid as an aid to digestion. 3, The use of carbolie acid per mouth and rectum to prevent the formation of intestinal flatus, and to act locally on the diseased mucous membrane of the alimentary canal. 4, A mild laxative and tonic pill in the intervals, or especially when an attack was threatened. 5, To control the pain, at times excessive, I gave hypodermic injections of morphine and atropine at first; but the process of injection being disagreeable to the patient, I substituted suppositories of morphine (one-half grain) and extract of belladonna (two grains) made up with cocoa butter. These operated admirably, and by their employment the patient was kept comparatively comfortable, even in the most severe attacks, for the remainder of her life.

Subsequently other courses of treatment were pursued, but none seemed to have a better effect than the one I have described.

"April 29th.—Some castor oil given yesterday caused vomiting after a few hours. Partial evacuations were obtained last night and this morning by means of enemata. Abdomen less distended.



"May 6th.—Patient comfortable. Bowels loose.

"June 5th.—Having a very severe attack. Bowels much distended with flatus. Pulse feeble, 120 per minute. Extremities cold. Mind wandering. Has used the suppositories quite freely of late. Their effect is to entirely relieve the pain, and the patient thinks that in many instances they have warded off attacks. Gave stimulants, under the influence of which the patient rallied.

"9th.—Consultation with Prof. D. H. Storer, of Boston. After a very careful and thorough examination the Doctor gave the diagnosis of 'wind colic.' No tubercles could be found in the mesentery—no tumor of any kind—no sufficient evidences of malignant disease. Still, the possibility of some serious organic lesion of the large intestine was admitted. Advised the use of sulphuric ether to relax the intestinal spasm, and particular attention to the diet. Medication deemed useless.

"11th.—Sulphuric ether employed, with no beneficial effect.

"Aug. 21st.—About house. Pulse nearly 100. Both legs markedly œdematous; feet sore. Abdomen distended; yields tympanitic sound on percussion. No evidence of liquid in abdominal cavity. Has much pain. Stools yeasty; diarrhœa. Urine scanty; urea less than normal; a trace of albumen. Examination with the microscope gives the same result as before, except that the evidences of renal disease are more decided. Some fat globules and pus cells.

"Sept. 10th.—Died from rupture of the bowels. Had had no passage for two weeks. Suffering excessive, when not under the influence of opiates. The rupture was attended with gurgling sound, apparently proceeding from the groin. The patient herself called attention to the occurrence, and, her agony being insupportable, she was kept under the influence of ether till she expired, one hour after the accident."

No formal autopsy was permitted, but as the corpse was to be kept some time before burial, it was deemed advisable to lay open the abdominal cavity and make some antiseptic applications. In this way I was able to obtain a partial and hasty examination. The following points were noted:—Abdomen distended almost to rupture of walls. On laying it open a great quantity of gas escaped, having an odor of sulphuretted hydrogen. Cavity contained a large amount (estimated at twelve quarts) of dark-colored, completely liquid fecal

matter. Right lobe of the liver larger and harder than normal. Large intestine hypertrophied, especially the descending colon. A stricture of the sigmoid flexure, at or near its junction with the rectum, plugged with mucus, causing complete obstruction. The portion containing the stricture was removed, and is herewith figured.



Above the stricture the intestine is much distended and its muscular coat hypertrophied, probably from the increased labor which had been thrown upon it in the propulsion of fecal matter. Above the stricture for an inch or more are numerous ulcerated patches, with irregular margins, the ulceration extending through the mucous membrane. At the superior margin of the stricture there is an unyielding band (a) surrounding the intestine. Through this is the perforation (b) which was the immediate cause of death. All around the perforation, and in one other place, the ulceration has extended through to the peritoneal investment of the intestine. Below the band spoken of, the mucous membrane is thickened and to some extent thrown into folds. The whole gut below the stricture is contracted, as is shown by the cut. No marked induration at any point. There is a dark discoloration of the tissues in the immediate vicinity of the main ulcer, but only to a limited extent.

Drs. Calvin Ellis, Chas. D. Homans, and D. H. Storer, of Boston, saw the specimen soon after its removal, and united in ex-

pressing the opinion that the disease was not malignant. Dr. J. B. S. Jackson examined the specimen after it had been kept several weeks in alcohol, and kindly sent me the following note in regard to it, with permission to publish it in connection with this report.

"The specimen which you sent to me some time ago seemed to be one of common ulceration of the intestine. The contraction, however, at the seat of the disease was very great, and such as I have never seen in the ulceration from typhoid fever, chronic diarrhœa or phthisis. In annular stricture, as it has been called, and which, before I examined your specimen, I thought that it might be, the contraction is generally very much greater, and, twice at least, I have seen it impervious to water. There is also a scirrhous density of the affected parts and an ill-defined abrasion of the mucous surface, rather than the open and well-defined ulceration that existed in your specimen; the disease being probably somewhat of a malignant character, though I do not suppose that the tissue would show the 'cancer cells.'"

#### REMARKS.

The history of the patient, and the testimony of the eminent gentlemen mentioned above, render it measurably certain that the stricture in this case resulted from the cicatrization of common ulcers, and not from malignant disease.

According to Rokitsansky, stricture of the intestine may be the consequence of tubercular, dysenteric or catarrhal ulceration. With reference to these several forms of ulceration, he says:—"Catarrhal phthisis" [a wasting of the mucous membrane by ulceration in catarrh of the intestines] "thus occasions a contraction of the intestinal canal, which becomes more considerable after the cure of the former. Cicatrization is effected by a dense, resisting, cellulose-fibrous tissue, which compresses the mucous membrane in the vicinity of the loss of substance, or the solitary, insular remnants of the mucous membrane into plicated, polypous tumors."—(Path. Anat., vol. ii. p. 60.)

In the dysenteric process the ulcers contract, "so as to bring the edges of the mucous membrane into apposition with one another, and with the polypous remnants of the mucous membrane;" or, when the loss of substance is extensive, "the deeper layers of the tissue which takes the place of the mucous membrane are frequently condensed into fibrous bands, which form corded projections into the intestinal cavity, in-

terlace with one another, and not unfrequently encroach upon the calibre of the intestine in the shape of valvular or annular folds, thus giving rise to stricture in the colon of a very peculiar form;" or, still farther, in chronic dysentery, "the concurrent contraction of the intestinal tube probably causes in this case, also, a diminution of its calibre."—(*Loc. cit.*, pages 76 and 77.)

"The cure of a tubercular intestinal ulcer is always accompanied by a diminution of the intestinal calibre." (*Loc. cit.*, page 83.) But the ulcer which accompanies typhoid fever never, he affirms, results in stricture. "It is singular and characteristic of the typhous ulcer and its cicatrix, that it never in any way gives rise to a diminution of the calibre of the intestine." (*Loc. cit.*, page 66.) Other authorities, so far as I have learned, agree with this statement.

Notwithstanding the broad assertions of Rokitsansky, the occurrence of intestinal stricture as a result of any form of ulceration must be extremely rare. Generally it may be stated, I think, that intestinal ulcers heal without producing any marked contraction. This seems a fortunate provision, for were the disposition to contract, in these cases, as great as in external cicatrices, stricture of the intestine would be very frequent. How frequent, we may understand by considering the common occurrence of intestinal ulceration from various causes, as dysentery, chronic diarrhœa, typhoid fever, and abdominal phthisis. Dr. J. B. S. Jackson, whose opportunities for observation have been excelled by few, says that in common ulceration, from whatever cause it may proceed, the tendency is not at all to contract. He never saw a case before in which the contraction was nearly as great as in mine.

It is probable that contraction takes place in many instances without producing any notable degree of stricture, or giving rise to subsequent trouble. Where the contraction is great, as in the case reported, there has in all likelihood been a re-occurrence of ulceration. It is a well established fact that cicatricial tissue takes on the ulcerative process much more readily than normal tissue. In the present instance the cause of the ulceration and its result, can be clearly understood, I think, from the history of the case. The patient was subject to constipation and various other disturbances of the alimentary canal. She made frequent use of purgatives, and in this way kept the mucous membrane of the intestines in a condition of chronic irritation if not of in-

flammation. There are evidences from the character of the alvine discharges that ulceration had taken place previous to the severe attack of colic and constipation in December, 1867. At that time it was the occurrence, perhaps, of ulceration, which loosened the impacted contents of the colon, and caused a spontaneous evacuation. A degree of contraction followed the healing of this ulcer, and henceforth the narrowed portion of the intestine became a centre of irritation, being rubbed against by the fecal masses in their passage downward, and more ready to ulcerate from the fact that ulceration had occurred before. The second attack, a little more than a year after the first, aggravated this condition; and finally the contraction became so great that periods of complete obstruction were both preceded and followed by diarrhœa. It is true the diarrhœa was often henteric in character, and this circumstance, together with that of the formation of flakes of half-dried mucus and pus, almost like false membrane, may explain the later attacks. The hepatic disease, by maintaining portal congestion, and deranging primary digestion, contributed its share, not an insignificant one, to the final result.

A few words may not be out of place here in regard to the diagnosis of "spasmodic stricture," which was made in this case with so much unanimity by the great majority of physicians who had anything to do with its treatment. In the lower part of the rectum, where a positive diagnosis is possible, spasmodic stricture is known to occur and to be a cause of obstinate constipation. The finger or the bougie introduced will detect the narrowed portion of the intestine, and whatever fecal masses may succeed in passing the stricture will be small in diameter, and perhaps ribbon-shaped. When the spasm relaxes a free evacuation of the bowels occurs, and the intestine is found on examination to be of its normal calibre. In such a case it is probable that the stricture is produced and kept up by hard feces pressing downwards on an irritable portion of the bowel, just as, not unfrequently, the finger in passing upwards causes spasmodic contraction and renders a complete examination impossible. Some permanent strictures appear as though they had arisen from the long continuance of spasmodic stricture. I am unable to see why this condition of things might not obtain higher up in the rectum, or even in the colon, although less probable there owing to the relative thinness of the muscular coat in these situations. The theory of spasmodic

stricture would offer a rational explanation of nearly all the symptoms in the case reported. There are two facts, however, which in my opinion exclude it, viz. :—1, The uniformly small diameter of the solid fecal masses, even in the intervals of obstruction. 2, The failure of the warm bath, sulphuric ether, &c., to produce an evacuation.

#### DR. PASSAVANT'S OPERATION FOR BREAKING UP POSTERIOR SYNECHIE.\*

Translated by B. JOY JEFFRIES, A.M., M.D.

"It is with great pleasure that I comply with your request to send you some details of an operation I have now practised more than a year, for breaking up posterior synechiæ. I will omit speaking of the endeavors hitherto employed to accomplish this, and only claim that they warrant our seeking some other method. I also omit the indications for operative interference in these cases, and would say in general that I have practised my operation where there were several synechiæ, and even broad ones, as well as where there were but single points, and up to this time with perfect success.

"This little operation consists in simply making a puncture at the edge of the cornea, passing in the iris forceps, grasping the iris, and by gently drawing breaking away its attachment at the pupillary edge. The forceps are then withdrawn without bringing the iris into the corneal wound. I employed this operation for the first time last year, on an eye with cataract, where there was a posterior synechia, intending to excise by iridectomy the portion of the iris grasped by the forceps should it inflame. There did not seem to me to be any other fear from the operation, provided the iris did not get fastened in the wound. Freeing posterior synechiæ by iridectomy had long ago taught us that there was no danger for the anterior capsule from these being broken up. The little corneal wound

\* This is translated from a letter of Dr. S. Passavant to Prof. Graefe, which the latter published in the "Archiv für Ophthalmologie," 1869. In explanation of the operation I would say, that these synechiæ or attachments from inflammation, of the iris to the lens capsule or cornea, are the fruitful source of repeated attacks of iritis, and their removal has been attempted in various ways. The danger to the capsule and lens has, however, till now almost prevented ophthalmic surgeons from interfering, in the methods heretofore proposed and carried out. This little operation, so modestly set forth by Dr. Passavant, has proved eminently practical and successful, as we can attest, and we trust this notice will serve to attach his name to it. We regard it as next to iridectomy in importance, which it will of course naturally supplant in many cases.

was still less to be feared. The result of this first operation was so satisfactory, without a trace of reaction, that I soon employed it on eyes without cataract. How little injurious it is to the eye, is seen from the fact that in more than fifty such operations I have not had a single bad sequela, and in some cases where there were several attachments, I repeated the operation on the same eye within a few days, once or twice within two days.

"I always made the puncture with the lance knife at the anterior junction of cornea and sclerotic, so that the internal aperture of the little wound should be far enough from the periphery of the iris to avoid its prolapsing, and yet sufficiently peripheric to allow me to easily grasp the iris. The puncture was made on the same side as the synechia, and large enough to allow an iris forceps to open readily. When the forceps enters, the aqueous humor flows off. Grasping the iris, gently drawing, letting go and carefully withdrawing the forceps, and we finish this slight operation. When there were two synechia close together, and the first pull did not free them both, I have again grasped the iris to free the second. I would, however, rarely recommend this procedure, but rather advise content with the freeing of a single synechia at a time, putting off to another day any lying beyond. This seems to me safer than a lengthened delay of the forceps in the anterior chamber, with the aqueous wholly or in part flown off.

"The iris getting pinched into the wound is the worst danger to be feared from this little operation. I have fortunately so far avoided it. If the iris, in spite of our best care, gets into the wound, it would be advisable to replace it most carefully, using a delicate spatula, or some such appropriate instrument. To avoid the iris sticking to the points of the forceps after we have opened them, and thereby being drawn into the corneal cut, I would recommend blunt-pointed forceps, without the sharp teeth closing together. I have used an old, very blunt pair of toothed forceps. The following will show that this apprehension is not simply theoretical. I learned from one of my colleagues, to whom I recommended this operation, that he employed it five times in freeing five attachments of the pupil in the case of a young man; a few days intervening between the several operations. In the right eye there were two, in the left three synechia. In the left eye the operations passed off well, leaving a perfectly movable pupil. In the right

eye the pupil became movable, but at one puncture the iris became attached to the corneal wound, producing a peripheric anterior synechia, which healed with slight inflammatory reaction.

"The freeing of a single, or even of several, fine attachments of the pupillary edge to the lens capsule, is so readily done by the method described, that any verification by details of cases seems superfluous. I may be allowed, however, to describe a single case, of those now in hand as an example, since it is one where several broad attachments were broken up.

"A girl 19 years old has had for a long time posterior synechia in both eyes. In the right eye there were two fine attachments at the upper part of the pupil, and a third broader one below. In the left eye there were four synechia; three of these were small, the fourth, on the inner side, a broad one. Repeated application of atropine could not break these attachments. There was also slight choroiditis. These cuts represent the pupils under atropine, the drawing being four times enlarged.

Right.



Left.



"All these attachments were broken up with intervening periods of from three to eight or ten days, during which the patient went home and followed her home occupations. The first operation was done April 14th, 1868, and the freeing of the last attachment June 15th, 1868. The pupils are now round and perfectly movable. The magnifying glass shows spots of black pigment left on the anterior capsule, where the synechia were broken. It should be stated that notwithstanding the freeing of all the attachments, the choroiditis continued, calling for local bleeding up to October; not, however, as I can see from other cases, in consequence of the operative interference, but in spite of it. The future must say whether the perfect freeing of the attachments has removed or only lessened the tendency to new synechia. As yet I have seen no return. This is the most desired result.

"It scarcely requires to be said in conclusion that the eye must be well fixed during this operation, and kept closed afterwards till the corneal wound heals. We have other methods of breaking anterior synechia; I will, however, state that I have employed this, to free several such attachments near the pupillary edge.

"I shall be pleased if this little operation, whose success I have so often already witnessed, meets with your approbation."

## Selected Papers.

### INVERSION OF THE UTERUS.

FROM an elaborate paper on this subject by Dr. Gaillard Thomas, in the *American Journal of Obstetrics*, we make the following extracts:—

The second method of taxis consists, not in manipulating the "constricted orifice in which the operator engages his fingers," so as to "dilate in advance the muscular fibres which oppose reduction," as Aran and Becquerel express it; but in dimpling or indenting the fundus itself, so as to make of the indented or invaginated portion a species of wedge, which is forced into the cervical constriction. In recent cases of inversion occurring, as the vast majority of these cases do, after labor, 350 out of 400 reported by Crosse having done so, the centre of the fundus may be indented and carried up through the cervical canal; and even in chronic cases such an invagination is much more practicable than one would theoretically suppose. As a general rule, however, my impression is that the manipulations practised on the fundus act, not in this way, but in overcoming cervical resistance, and thus accomplishing in a more indirect and imperfect way what the French method, styled the method of Viardel by Becquerel, does by engagement of the fingers within, and direct expansion of, the cervical constriction.

Dr. Emil Noeggerath, of this city, has offered a modification of the second plan, which I have resorted to with success on two occasions which will be hereafter reported, and which I regard as one of the most valuable suggestions which has been made of late years with reference to the subject. His method consists in compressing the uterine body, opposite to each horn, so as to indent one of these, and thus offer to the cervical canal a wedge, which passes up and is followed rapidly by the other horn and the whole body.

My experience in the reduction of three of my cases has been this:—the first result of manipulation has been to overcome the resistance of the cervix, so that the whole of this part turned over and enfolded the body, further progress being stopped by resistance at the os internum; then one

horn has gradually become indented, and thus the second part of the process of replacement has been effected. \* \* \* \*

Among certain comments on a case published in 1857 by Dr. Worster, of New York, where Dr. Thomas was engaged in consultation, the latter remarks as follows:

At the moment of reduction in this case, the fibres of the cervix having yielded as far as those of the os internum, which still offered a resisting stricture, I was pressing the thumb upon one horn and the index-finger upon the other, after Noeggerath's method. While doing this, I was conversing with the gentlemen who were with me, when, suddenly, my thumb sunk into an indentation. Supposing this to be due to penetration of the uterine tissue, I was about to withdraw my hand and report the accident to Dr. Worster, when, to my surprise, I found upon slight increase of pressure that the indentation increased. I now perceived that the horn had receded, and in a minute or two more the whole uterus rose into its place.

One point upon which Dr. Worster does not, in his essay, lay that stress which I think it deserves, is this:—at the commencement of the attempt I proposed making counter-pressure, not by the fingers, but by a conical plug of boxwood, with a handle a foot long, which I carried for the purpose. This plug was not introduced through the vagina, but was used thus:—the hand in the vagina lifted the cervix against the abdominal walls, so that the cervical ring could be felt through them, and the plug was then pressed into the ring by pushing before it the abdominal walls. During Dr. Worster's efforts I held this plug forcibly in the cervical ring, and during my efforts he did the same for me. It may have had no influence in dilating the constricted cervical canal, but it is worthy of attention as a rational attempt to accomplish that result. To my mind, and to that of Dr. Little, it appeared that its effect was evidently good. \* \* \* \*

CASE IV.—On the same night upon which I received Dr. Bishop's note requesting a consultation in the case just narrated, I received a letter from Mr. B., of Louisville, Kentucky, detailing the following facts:—

He stated that his wife, aged 23 years, a native of Indiana, had enjoyed good health until twenty-one months before that date. At that time she bore a child, and since then she had been an invalid.

Subsequent to this, menorrhagia of most profuse character had occurred at each

menstrual period, and for its relief she had sought medical aid. The physician who was consulted prescribed astringents, and hæmostatics, but did not explore the vagina for the cause of the difficulty. Eight months after her labor she fortunately applied to Prof. Henry Miller, of Louisville, the accomplished author of "Miller's Principles and Practice of Obstetrics." This gentleman at once recognized the nature of the difficulty, and proceeded to apply the proper remedy. On five occasions he anaesthetized the patient with chloroform, and employed taxis for an hour and a half. Each effort thus made was followed by the systematic employment of pressure by means of the vaginal air pessary. All his efforts were of no avail. The patient became exhausted and discouraged, and leaving Louisville, sought the aid of Prof. Theophilus Parvin, then residing in Indianapolis.

Prof. Parvin made five determined and prolonged attempts, each one lasting from four to six hours, the patient during their continuance being under the influence of ether, and each being followed by the air pessary. All these efforts resulted in failure, and the patient, exhausted and almost desperate, returned to her home in Kentucky. Here she met with Dr. W. M. Allen, who advised her to make still another trial, and, in accordance with his counsel, she came to me about the last of August.

Upon Mrs. B.'s arrival in the city I was away, but saw her on the 1st of September. When Mr. B. had written to me, asking for a frank statement as to what hope I could hold out, my reply was, that after Professors Miller and Parvin had failed I was inclined to promise nothing. My mind, however, was so possessed by the idea that belladonna, the warm douche, and the abdominal plug, by which I had twice succeeded, once in a rebellious case, and once very rapidly in a simple one, would succeed in this, that I urged him at least to let me make an effort.

I found Mrs. B. to be a delicate, fragile blonde, weighing about ninety pounds, very pale and exsanguinated from profuse menorrhagia, which had occurred at intervals for twenty-one months, and much disheartened by the failure of her eminent medical advisers.

The patient was rapidly brought under the full influence of belladonna, administered by rectal suppository, and the warm douche was employed three times daily, for an hour each time. At the end of a week she was anaesthetized with ether, placed upon the back upon a table, and, aided by Drs. Nott,

Metcalfe, and Walker, I proceeded to make my first attempt at reduction by taxis. For an hour I tried faithfully all the varieties of taxis to which allusion has been made in this paper, and made counter-pressure by the abdominal plug, but all to no purpose. The cervix expanded nearly up to the os internum, but no further would it yield.

Filling the vagina with a caoutchouc bag, and distending this with very warm water, she was now put into bed. On the next day, at the same hour, exactly the same procedure was gone through with, Dr. Sabine replacing Dr. Metcalfe in the consultation, on account of the indisposition of the latter gentleman. The result was the same, and at the conclusion of the attempt the bag was replaced, filled with warm water, and on the next day the third trial was made.

At the end of the hour no advance was obtained, and I now began to share in the opinion of Dr. Miller, that adhesions existed within the sac, and that no amount of taxis would ever reduce the displaced fundus.

For cases in which reduction has been so far effected that the fundus can be pushed up to a level with the external os, Dr. Emmet has advised and practised a method which appears to me to be most excellent. It consists in closure of the os externum by silver sutures, so that the fundus, imprisoned in the cavity of the neck, tends to dilate the constriction near the os internum. At a subsequent period the stitches are removed and taxis is practised again. I should have resorted to this plan here, but the fundus was never sufficiently high to admit of its retention in this way. Dr. Emmet's method will be found described at length in the *Amer. Jour. of the Med. Sciences* for January, 1868.

On the next day we met again, in the case of Mrs. B. Being desirous of giving the patient the advantage of every resource which would save her from a dangerous capital operation, I went to the consultation prepared to offer two suggestions: the first was that I should pass a delicate tenotome through the fundus, carry it up through the cervical canal, and incise its four sides so as to cut through the constriction existing there, and due to the fibres near the os internum;\* the second was,

\* *Reduction of Uterine Inversion.*—In the *Lancet* for the 21th of April, 1869, Dr. Robert Barnes mentions a case of inversion of six months' standing in which taxis had been tried on five consecutive days without any change. Dr. Barnes then made three longitudinal incisions on the neck of the womb, so as to destroy the resistance of the circular fibres; and the taxis employed immediately afterwards brought about a complete reduction. The patient made an excellent recovery.—Ed. B. M. and S. J.

that I should draw the uterus outside the body and cut downward through the mucous membrane. The patient having been anesthetized, I manipulated as usual, except that I employed greater force, for twenty minutes. At the end of this time, no progress being observed, we consulted upon my propositions, and, with the acquiescence of my colleagues, I pushed the uterus up as far as it would go, then, fixing by my finger the point of constriction, I drew it down, and cut down through the tissue of the neck, the incision first involving the mucous membrane and extending down toward the subjacent peritonæum, as recommended by Aran.\*

No sooner was the knife withdrawn than a free jet of blood was projected from an artery which appeared nearly equal in size to the radial. This jet was not per saltum, but steady, as it is often seen to be from small arteries located in dense fibrous tissue. I presume that I cut the circular artery of the neck, which had become increased in size by the displacement of the uterus. For a half hour we strove to ligate this. Upwards of a dozen ligatures were one after another applied, but the vessel had retracted into the brittle tissue of the uterus, and could not be tied. Dr. Walker went for the actual cautery, but before his return the flow was checked by Dr. Nott's passing a suture through both lips of the wound, and bringing them forcibly together. Of course all efforts at taxis were at an end, for the present; nor did I think it wise or warrantable again to renew them; for fourteen efforts had now been made without any promise of success.

The case then presented itself in the following aspect. Here was a patient whose exsanguinated condition and tendency to profuse hæmorrhages demanded relief from an evil that would soon destroy her life, which on more than one occasion had been in danger from excessive flooding. Taxis had been tried fourteen times, some efforts lasting from five to six hours, and only one less than an hour. The constriction which resisted reduction had been cut at infinite risk, and all had failed. The only recognized operation which now offered itself was amputation, and at the thought of this the patient revolted.

Under these circumstances I proposed an operation which throughout the progress of the case I had kept in reserve, and which, two years before it, I had fully elaborated

in my mind. It was, that I should make an incision two inches in length through the abdominal walls and peritonæum, just over the cervical ring; pass into this ring a steel dilator, made on the principle of a glove-stretcher; stretch the constriction; and return the uterus to its place. The propriety of the operation being concurred in by my colleagues, and by my partner, Dr. Metcalfe, it was explained to Mr. B., and all its important bearings made clear to the patient herself, of whom I had seen enough to know that her unflinching courage was equal to any trial which promised release from the unfortunate state which for nearly two years had embittered her life and destroyed her usefulness.

After ligation of the circular artery, the mucous membrane of the uterus sloughed extensively and the patient appeared much exhausted. In a week from this time, however, she was in a fit condition for the operation proposed, and it was appointed to take place on the 16th of September.

The instrument \* \* \* was promptly and artistically executed for me by Messrs. Darrow & Co., of No. 1217 Broadway, and I obtained a small anal speculum, and a dilator for stricture of the rectum, to be employed, should sufficient dilatation not be accomplished by the instrument \* \* \* \*

On the 16th of September the operation was performed in presence of Drs. R. P. Howard, of Montreal; Hutchison, of Brooklyn; S. W. Francis, of Newport; and Nott, Sabine, Metcalfe, Markoe, G. T. Elliott, Noeggerath, Jas. L. Brown, and Walker, of New York. The patient having been put under the influence of ether, Dr. Metcalfe introduced his hand into the vagina, and lifted the uterus so that I could detect the cervical ring against the abdominal wall. I then slowly cut down upon the median line, as for an exploratory incision in ovariotomy, and leaving the wound exposed to the air until all oozing had ceased, cut into the peritonæum. I then inserted my finger into the uterine sac, and found no adhesion whatever to exist. Replacing Dr. Metcalfe's hand by my left hand, I now inserted the steel dilator, and, \* \* \* \* dilated the stricture.

The dilatation was exceedingly easy and rapid, but I found that as I withdrew the dilator, the tissue of the organ would at once contract. After dilating the stricture fully, I partially returned the uterus, after some effort, in the same manner in which reduction was accomplished in Dr. Emmet's case. Drawing it down to the vulva, I

\* Mal de l'utérus, p. 306.

rapidly pushed it up, and was gratified at finding that it was nearly replaced. Drawing it down again, this time outside of the body, to my dismay I discovered that the artery, cut one week before, was spouting freely. I now saw that success must be attained at once, or that it would elude my grasp when just within it. Actuated by this feeling, I rapidly returned the organ, and was delighted to find one horn rise into place. But the additional force employed was a little more than the vagina could bear, and one finger passed through between the uterus and bladder. One horn was still inverted. Passing the dilator into this, I stretched it open, and instantly the uterus resumed its normal position.

The time of the operation was noted by Dr. Samuel W. Francis, as follows:—patient under ether, 1 hour and 2 minutes; time occupied in opening peritonæum, 17 minutes; time occupied in returning uterus, 27 minutes.

After this the patient rallied rapidly, and her delight at learning that the obstinate inversion had been really overcome unquestionably acted as a stimulant to recovery.

The abdominal wound was closed by four silver sutures, involving the peritonæum, and dressed with cold water. The vaginal rent was not interfered with.

On the next day the artery, which had already given so much trouble, began to give forth blood so freely into the vagina and through the vaginal rent into the peritonæum, that I thought the hæmorrhage would end fatally. The pulse ran up to 160 to the minute, the face and extremities became cold, and so imminent did the danger of exhaustion appear to me that all preparations were made for transfusion.

Before resorting to this measure, I tried to check the flow by elevating the foot of the bed two feet, so as to throw the whole aortic column of blood back upon the heart, and applied a bag filled with tannin against the os uteri. These measures happily succeeded; and hæmorrhage ceased entirely.

Subsequent to this period, the patient recovered without a single unfavorable sign; the peritoneal edge of the abdominal wound healed by first intention, and on the eighth day after the operation she left her bed for her lounge.

This operation was by no means perfect. The instruments which I employed for dilatation were, I found too late, inefficient, and means for keeping open the constriction, after removal of the dilator, were entirely wanting. I feel very sure that were

I to essay it again, which I should not hesitate to do *in a case which had resisted all minor means, as taxis, vaginal pressure, &c.*, and for which no resource but amputation remained, I should succeed more rapidly, easily, and with less risk to my patient.

In reading the description of such an operation as this, the first idea which is likely to take possession of the mind is that of its being a very bold procedure. This I think is an error. Explorative incisions for ovariectomy prove that the dread which was formerly entertained about opening the peritonæum was much greater than it should be. And if the reader will bear in mind the statistics already given, which prove that one-third or one-fourth of all operations for amputation of the inverted uterus end fatally, even while essaying, not cure, but palliation of symptoms at the cost of the uterus itself, he must admit that there are good grounds for questioning this conclusion, arrived at without mature reflection.

For the credit of the operation, imperfect as it was, the following facts must be borne in mind by the reader. The difficulties which attended it were none of them inherent to it, but depended upon want of experience as to its various requirements. The patient was subjected to it in a state of great exhaustion from other operations. The evils which followed it, and well-nigh frustrated its results, were due, not to it, but to section of the neck, performed a week before. So far as the operation itself was concerned, the patient recovered without an untoward symptom.

Before concluding my remarks I will venture some advice, based upon the experience recorded in this essay, as to the course which should be pursued in an ordinary case of inversion, and then offer a few suggestions for any one who, in a rebellious case, may be disposed to try the operation which I have described.

In a case presenting itself for the first time for treatment, I should use belladonna and the warm douche for a week, so as to relax the uterine tissue as far as possible, and then for another week employ pressure by means of a caoutchouc bag filled with air or water. After this I should employ taxis, for a period not exceeding one or two hours, once, or at most twice a week, in the meantime keeping up vaginal pressure by the caoutchouc bag, or, if the fundus were returned within the os, by closure of this after Emmet's method.

Having failed with these measures, *and not before*, I should resort to abdominal sec-



tion, modifying the operation which I performed in the following manner. Instead of employing a dilator of two limbs, I should employ one of four; and instead of dilating by the hand applied to the handles, I should distend the instrument by screws. Having distended its four limbs, I should keep the instrument in place for twenty-five or thirty minutes, so as to wear out the tendency to contract before any efforts at reduction were made. Even then, before removing the dilator, I should introduce between its limbs something which would exert a counter-pressure against the hand placed in the vagina. For this purpose I would suggest a hard rubber cylinder  $1\frac{1}{4}$  inches in diameter, \* \* \* which has a piston passing through its centre, and a shoulder or ridge encircling it. This ridge would answer for making counter-pressure; the walls of the cylinder would prevent closure of the cervical canal by contraction of its tissue; and the vacuum created within the inverted uterus, by retraction of the piston, would aid in reducing the body, when pressure is made upon it by the hand in the vagina. The shoulder might be made quite wide, so as to rest on the edges of the abdominal wound, while the extremity of the cylinder passed within the abdomen; or it might be made narrower, so as to pass into the abdomen, and rest on the edges of the cervix. \* \* \*

[This paper, as it appears in the *American Journal of Obstetrics*, is accompanied with wood-cuts representing some of the instruments used by Dr. Thomas. It illustrates, we think, what the French have called the *hardiesse* of American uterine surgery.—*Ed. B. M. & S. Journal.*]

## Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 23, 1869.

### THE CASE OF DR. SCHÖPPE AND ITS MORAL ACCORDING TO THE BOSTON DAILY ADVERTISER.

WE last week extracted from an article in a Washington paper a brief notice of this case, abstaining from comment and from forming an opinion upon it. The theory of the writer in the Washington paper seemed to be that the traces of prussic acid said to be found in the remains of the person whom Dr. Schœppe was convicted of murdering were not decided enough to

prove that the deceased was killed by that agent; that the physicians were not sufficiently known as morbid anatomists to give their opinions supreme authority; and that the report of those gentlemen as to the autopsy was too meagre to form a judgment upon. Especially, it was suggested, there was no sufficient evidence published to show that the deceased, who complained of feeling ill while out walking the day before her death, might not have died of Bright's disease. And, as she had been under the charge of an oculist, that specialist it is justly argued should have been interrogated as to whether or not he discovered such signs of that disease as the ophthalmoscope so often detects. These things, however, we receive for the most part as mere assertions. But, it is not questioned that a number of medical men and chemists have publicly declared that the evidence on which conviction was obtained was insufficient. And it is difficult, under the circumstances, to understand why there should have been any unwillingness to listen to all that could be said in favor of the prisoner's innocence—why he should be hurried into eternity without a hearing from a respectable and disinterested body of men, who are begging that the hand of the executioner may pause till the case of the accused be more carefully sifted than they think it has been.

The *Advertiser*, on the other hand, declares that Dr. Schœppe has been found guilty of murder after a very fair and cautious trial, and that those who have most thoroughly investigated the case are entirely convinced of his guilt. These things, too, are to us mere assertions. But, we trust that our cotemporary before making such assertions was among those who thoroughly investigated the case, and that he took reasonable care to ascertain that the other believing investigators were really more thorough than their opponents who disbelieve. We can, at all events, see no reason for a snap judgment in the matter. We presume the prison walls of Pennsylvania are strong enough to hold Dr. Schœppe until all doubt be removed. In saying these things, we beg to add that we are no opponent of capital punishment—have no desire to screen

murderers at the expense of subsequent victims. Furthermore, if any should assert that it is the spirit of clanship which has called forth professional protests against this execution, we point to the trial of Dr. (and Prof.) Webster, in which the government owed so much of its case to the medical witnesses, whose evidence is a bright example of truly expert testimony.

Now listen unto the *Advertiser's* logic! It says the man has been found guilty after a very fair and cautious trial; and yet in the preceding sentence declares that the case affords "no special lesson beyond that so often enforced, of the danger of accepting the evidence of experts, especially of medical experts, as decisive upon questions involving life and death." Take away from "among the testimony which convicted him" that allowed to be put in, "of several physicians who had examined the body of the dead girl" (the girl was 65 years old), and will the *Advertiser* say that it has so thoroughly investigated the other circumstantial evidence as to proclaim it sufficient for conviction of murder?

Medical experts! Nowhere have their shortcomings been more severely rebuked than in the columns of this JOURNAL. And yet is there any reason to suppose that the testimony of medical is worse than that of any other experts? Doctors have perhaps been more often called to testify in court as so-called experts than other classes of persons, and therefore attention has been specially directed to their deficiencies. But, let a newly erected and improperly constructed building fall to the ground, destroying valuable human life, and will there not be enough professed builders to come forward and testify as experts that the structure was well built? Are there many individuals, outside the State Prison, so bad that, if their integrity be called in question, they cannot find persons who may claim to be moral experts, who will take oath to their good character?

On one point we agree with the *Advertiser*, fallacious as we consider its reasoning upon the case above alluded to. The whole business of expert testimony needs thorough overhauling. The name of expert is too often a misnomer. Counsel are bound

by their duty to their clients to win their causes if they can. And, in a question as to a vessel's seaworthiness, for instance, they might almost put in the evidence of a ship-builder who makes shipping by the mile and cuts it off in lengths to suit customers. Experts should be appointed by the judges—and perhaps only the judges of the Supreme Court—with whom it would be the point of honor to select only persons of the highest eminence and experience in their several callings. If this had been practicable and had been done in the case of Dr. Schœppe, no one would have claimed that the medical testimony was at once so bad as to show the danger of accepting the evidence of experts, and so good as to leave no doubt of the point at issue—the guilt of the prisoner.

The "salient point" to our minds, in this matter, is not that of the *Advertiser*, but this—a number of physicians and chemists have pronounced the medical and chemical evidence at the trial of Dr. Paul Schœppe unsatisfactory, and it is therefore most fitting that before the executioner be bidden to take away that which he cannot give—a human life—the case be re-examined, lest a judicial murder be committed.

THE SCHœPPE CASE; MEETING OF WASHINGTON PHYSICIANS; MEMORIAL TO GOV. GEARY.—We have received from Dr. Toner, of Washington, a copy of the *National Republican* of that city, containing a full report of a meeting of physicians belonging in Washington, at which assembly the case of Dr. Schœppe was fully discussed. We make a few extracts.

"In accordance with the invitation of a number of the prominent physicians of the District, a meeting of the medical practitioners, chemists and jurists of Washington and vicinity was held on Saturday, Dec. 11th, at 1 o'clock, in the Hall of the Medical Society, on F Street, corner of Tenth, for the purpose of reviewing the case of Dr. Paul Schœppe, now under sentence of death for the murder of Miss Steinnecke.

\* \* \* \* \*

On motion of Dr. F. Howard, the Chair was requested to appoint a committee of five to report resolutions for the consideration of the meeting, and the chair appointed Drs. Howard, Antisell, Johnston, Toner

and Lieberman, who, after a short absence, submitted the following :—

*“Resolved,* That the published statements of the trial of Dr. Paul Schœppe do not contain any evidence of a scientific character which goes to prove that Miss Stein-  
necke died of the effects of prussic acid, or indeed of any other poison.

*“Resolved,* That so far as an imperfect examination of the body, made after a lapse of twelve days subsequent to death, will allow a conclusion to be drawn, and taking the history of the case into consideration, the aggregate of the evidence points to a natural death.

*“Resolved,* That a committee of five be appointed to prepare a memorial, to which the signatures of the meeting are authorized to be attached, and forward the same to the Governor of Pennsylvania, requesting executive clemency in this case.”

\* \* \* \* \*

The following important letter was read :

“NEW YORK, NOV. 30, 1869. *His Excellency, Gov. J. W. Geary, Harrisburg:*—The undersigned, chemists by profession, have read in the papers that Your Excellency has issued your warrant for the execution of Dr. Schœppe, for the alleged crime of murder by poison.

“We have examined with care the chemical testimony upon which such conviction was had. A criminal act is alleged to have been proved by the evidence of a chemist, who testified to having discovered in the deceased indications of prussic acid. This scientific witness stated with precision the experiments upon which his opinion was based. These experiments were conducted in such a way that they would have given evidence of the presence of prussic acid in any ordinary healthy stomach. The first step in the examination, that of treating the stomach with sulphuric acid, precluded the possibility of determining whether the faint traces of prussic acid claimed to have been discovered existed in the stomach as such, or resulted from the action of the sulphuric acid on the nervous fluids which must have lined the interior of that organ.

“In view of these considerations, in the interest of scientific truth, and in the interest of a wise administration of justice, we have thought it our duty, though personally unacquainted with Dr. Schœppe, to express to you this our opinion, that the evidence of the presence of prussic acid, as such, in the stomach, upon which he was

adjudged guilty, is insufficient to sustain his conviction.

E. N. HORSFORD,  
Late Rumford Professor in Harvard University, Massachusetts.

R. OGDEN DOREMUS,  
Professor of Chemistry and Toxicology,  
New York Bellevue Med. College.”

The proceedings were closed with the presentation of a memorial, which was signed by most of those present at the meeting. It runs as follows :—

*“To Hon. John W. Geary, Governor of the State of Pennsylvania:—*

“The memorial of the undersigned physicians, medical chemists and jurists, of the District of Columbia, respectfully shows that a careful review and examination of the facts and arguments in the case of the trial and conviction of Dr. Paul Schœppe, of Carlisle, Penn., for murder in the first degree, shows that the fact of administration of prussic acid, or of any other poison, was not proved. That the evidence of the chemist for the Commonwealth was defective, incomplete and insufficient to satisfy the mind of any expert that poison was found in the body; and that the other scientific testimony was so loosely given as to be of no value except to prove the probability of a natural death.

“In view of the foregoing, pointing out the insufficiency of the evidence on which Dr. Schœppe was convicted, as well as for the sake of humanity liable to be outraged by an act of injustice upon an individual free from the crime charged, we earnestly pray that the Governor will exert executive clemency in this case.”

MEMORIAL TO CONGRESS ASKING JUSTICE FOR THE MEDICAL STAFF OF THE NAVY.—We have seen a memorial issued by some of the eminent medical men of Philadelphia, which asks that Congress take action with regard to the wrongs of our brethren of the quarter-deck. It is intended for signature by the officers of medical societies. A circular accompanying it well says :—

“The question of the position of the medical staff in the United States naval service is not merely one which affects the dignity and comfort of the medical officers. \* \* \* It is one which inevitably concerns the standing of the whole profession. \* \* \* Unless we take care by decided effort to show our determination to sustain every demand for due consideration on the part

of our fellows in public and private, who have proved their right to a position as respectable members of the profession, we need not hope to retain the influence in society to which we are entitled, but which it is the tendency of the day to undervalue; and which too many, especially among the accidentally and newly-prominent of our citizens, are inclined to disregard because they cannot comprehend it. \* \* \*

"This appeal and the memorial have not been either written or suggested by officers of the navy medical staff; and yet it need not be said that it meets the cordial approbation of those to whom they have been submitted."

The Department order of April or May of the current year, be it remembered, was one which resuscitated the evils which had been lessened during the war, and which stripped the staff officers of the rank which had been allowed them, reducing their pay and depriving them of proper quarters.

We have received the Forty-fourth Annual Report of the Managers of the Massachusetts Charitable Eye and Ear Infirmary, together with the Surgeon's Report. We make a few extracts:—

The officers for the year 1869-70 are:—  
Managers:—*President*, Edward H. Clarke, M.D. *Edward Reynolds*, M.D., *J. A. Blanchard*, *J. Huntington Wolcott*, *Benjamin S. Rotch*, *Charles R. Codman*, *R. Sturgis, Jr.*, *James Lawrence*, *S. K. Lathrop*, *Harvey Jewell*. *Treasurer*, *J. Wiley Edmonds*. *Secretary*, *Augustus Lowell*. *Surgeons*, *Robert W. Hooper*, M.D., *Gustavus Hay*, M.D., *Henry L. Shaw*, M.D., *Hasket Derby*, M.D., *Francis P. Sprague*, M.D., *B. Joy Jeffries*, M.D., *Microscopist* and *Curator of the Pathological Cabinet*, *Robert Willard*, M.D. *Assistant Surgeon*, *George W. Handy*, M.D. *Matron*, *Mary G. Watson*.

"We consider it second to no one of our public charities in point of usefulness. Seventy-six thousand patients have received professional treatment at the Infirmary since its foundation in 1824, and in no one year of its operation so many as in the last, a considerable proportion of whom would otherwise have become helpless paupers for the want of sufficient sight to enable them to earn a living. It is not the indolent and worthless of the community who form the class from which the patients come, but chiefly the industrious, who are

actively engaged in occupations which cause injuries to the eye, and are ambitious to continue in useful employment." \* \* \*

"A glance at the subjoined table will show the number of beds in eye infirmaries, compared to the population, in some of the cities of the world where eye infirmaries and clinics exist.

Cities.	No. of Inhabitants.	No. of Beds.
Berlin, - - - - -	600,000	120
Dantzic, - - - - -	82,000	19
Darmstadt, - - - - -	30,000	15
Dorpat, - - - - -	14,000	24
Dresden, - - - - -	128,000	50
Dusseldorf, - - - - -	55,000	80
Frankfort, - - - - -	80,000	12
Freiburg, - - - - -	19,000	17
Glasgow, - - - - -	490,000	24
Hallic, - - - - -	46,000	50
Hanover, - - - - -	75,000	27
Heidelberg, - - - - -	17,700	106
Königsberg, - - - - -	17,700	44
Lausanne, - - - - -	95,000	22
Leipsic, - - - - -	80,000	31
Ludwigsburg, - - - - -	12,000	23
Moscow, - - - - -	350,000	96
Munich, - - - - -	165,000	40
Prague, - - - - -	160,000	180
Riga, - - - - -	65,000	75
Sierlin, - - - - -	65,000	19
Stuttgart, - - - - -	61,000	20
Turin, - - - - -	300,000	300
Utrecht, - - - - -	57,000	44
Vienna, - - - - -	554,000	92
Wiesbaden, - - - - -	27,000	54
Würzburg, - - - - -	38,000	30
Zurich, - - - - -	40,000	45

"The Massachusetts Charitable Eye and Ear Infirmary has but thirty-nine beds, and yet its doors are open to all the needy inhabitants of the Commonwealth (numbering nearly one and a half millions), who require advice, assistance or operation. Patients are also seen from all other States and countries.

"Complaint has been made by the medical profession that the Infirmary, like other public charities, is abused by a large class in the community able to remunerate a physician for services rendered. The Surgical Staff, receiving no emoluments from patients or trustees, are alike independent of bias on the one side or the other. With strict justice towards applicants, they endeavor, as far as possible, to refuse those who are apparently abusing a public and private charity, although they cannot but realize that this refusal tends to allow patients to fall into the hands of inexperienced and unskilled practitioners. But it is also true that physicians frequently themselves send to the Infirmary patients who can amply afford to pay for advice, and refusal in these cases often causes unreasonable complaint."

*Operations*.—There have been two hundred and eighty-three operations. We quote the results as to cataract:—

	Total.	Success- ful.	Undeter- mined.	Unsuc- cessful.
Flap downwards, -	1	1	0	0
Linear operation, -	3	3	0	0
Dissection -	12	9	3	0
Grafe's method (peri- pheric linear), -	52	43	5	4
Total -	68	56	8	4
Cataract -	-	-	-	68

FROM the interesting "Report on Surgery," by Dr. Lyman B. How, of Manchester, N. H., contained in the *Transactions of the State Society for 1869*, we make this extract:—

While it has thus been my privilege and my pleasure to congratulate you, Mr. President and Fellows, on the many and solid improvements recently made in our art, and on the readiness and even eagerness with which these have been adopted by the profession, I must lament over the pertinacity with which some of our brethren still cling to the constant employment of an agent which experience has abundantly proved to be but too often a deadly poison, so that the surgeon, whose very presence inspires the sufferer with firm hope of a prolonged life, is too frequently the very harbinger of a speedy death.

You will understand what I mean when I read an extract from a daily paper.

"Died on Christmas day, Mrs. J. S., of an over-dose of chloroform administered for the opening of a felon contracted in sewing for the poor. A coroner's jury was summoned to investigate, and they reported that the deceased died through misadventure, from the effects of three drachms of chloroform carefully administered."

Would that this were a solitary case! But the same item has appeared in a hundred papers at various times, with the name and the circumstances only changed. The report of the coroner's inquest might well be stereotyped for constant use in our weekly papers. Yes, every week counts its victim; every week a human being, assured of the perfect safety of chloroform, inhales its Upas fumes, and is hurried prematurely to his long account. Yes, chloroform is a *real* Upas tree. This time it is the growth of British soil, and has been transplanted thence to ours. The most eminent British surgeons (approaching from the windward side) keep propping up its inclining trunk. Its balmy odor, say they, "is sweet above all others; come, smell, and be exempt from pain"—in death. Why, as I write these very words, the June number of "*The Medical News*" is handed me, and glancing at the table of contents I

read "Deaths" (not death) "from chloroform," and turning to the page I read as follows:—

"Dr. Squibb communicated to the N. Y. Pathological Society a case of death from chloroform. The patient was the wife of a physician and the mother of eight children. Drs. Hutchinson and Krackowizer advised the removal of an epithelioma of the tongue. Dr. Squibb administered the anæsthetic from a pint bottle containing two ounces of chloroform into which a coil of paper was immersed—the chloroform rising to the top of the coil by capillary attraction. She came readily under the influence of the chloroform, and passed through the intoxicating stage quite rapidly, but, some sensation remaining in the tongue, profound anæsthesia was produced by allowing her to inhale from a napkin. No chloroform was administered during the operation, which was long and difficult, and during all the time her pulse remained good. After the removal of the growth, and just as Dr. K. was about to pass a stitch into the wound, the patient suddenly fainted, and despite all the efforts that were made for a long time, she never breathed again. It was Dr. Squibb's opinion that the cause of death was a direct poisoning of the nervous centres by the chloroform."

Surely there is no carelessness here. Dr. Squibb, one of the best of chemists, a physician who knows as much about chloroform as any man living, celebrated for making pure anæsthetics, has a lady right under his own eyes, and attributes the death to "direct poisoning of the nervous centres by the chloroform."

*Case Second:—*"Dr. Finnell exhibited to the same society a series of specimens consisting of the heart, &c., removed from a little girl 6 years of age who applied to the New York Eye and Ear Infirmary for treatment of convergent strabismus of the left eye. One drachm of chloroform was given, and then a second. Dr. Delafield proceeded to divide the internal rectus, while the patient was yet not completely under the influence of the anæsthetic. No more was, however, given. The child was quite restless during the operation, and a few moments after it was finished it was discovered that she had ceased to breathe. All the ordinary efforts to restore respiration usually made use of were futile. The time from the commencement of inhalation until death was fifteen minutes."

Then comes the same old account of the *post-mortem* appearances which have been published in magazines and works on pa-

thological anatomy and medical jurisprudence time and time again, which is just as satisfactory as an account of the *post-mortem* appearances of sun-stroke and death by lightning—they don't prevent our being obliged to see the same thing again and again.

This last case reminds me of one of the sad features of these deaths by chloroform, that they do not all occur during or after prolonged and critical operations, but very often when the anæsthetic has been administered for comparatively trivial purposes, and when very little has been given—such as for extracting teeth, or for operations for remedying slight defects of personal appearance, as in the second case already quoted. In trimming the wick a little, the whole flame was snuffed out, while the lamp of life was nearly full.

And another peculiarly sad feature of such cases is that death comes so unexpectedly, like lightning from a cloudless sky, and as suddenly. The confiding patient who has been promised speedy relief from suffering, submits herself calmly, yes, joyfully, to the physician's care, goes quietly to sleep and awakes only in another world. *Iatros* was sent for, but *Atropos* came.

But do circumstances warrant this severity of language? Let us see. In the April number of the journal already quoted from are *three* deaths from chloroform. One that of a chemist of Sheffield who was about to have a piece of diseased bone removed from his leg. The account says "the patient's heart and lungs were examined prior to the use of the chloroform, and the quantity employed was exceptionally small; yet, after inhaling for but three minutes, the heart ceased to beat and the man was a corpse." Of the two other deaths, one occurred at the Leeds Infirmary, and the other at St. Bartholomew's Hospital. In the February number there are no less than *five* deaths reported from this "invaluable agent," which a recent English work says "has superseded ether." In these five cases, all English, it certainly "superseded" life. In one case it was inhaled to relieve pain in the face, in another for asthma, in a third for amputation, in a fourth for an operation for fistula, and in the fifth to a lady for extracting teeth—in which case the coroner's jury reported that "more than the usual precaution had been taken." In the January number is a lecture by Professor Billroth of Vienna over another sudden death. The professor talks very learnedly about the symptoms of impending collapse and about the *post-mortem* appearances, and about in-

dividual idiosyncrasies. He says "people die suddenly and unaccountably from tetanus or erysipelas after surgical operations;" all of which is a poor consolation to the relatives of the dead man, and no better reasoning than if he had said "people die natural deaths sometimes; therefore, let us kill somebody." He acknowledges the danger attending the use of his favorite anæsthetic when he advises his pupils never to administer it alone, but by all means to have at least one assistant with them," and when he gives explicit direction about artificial respiration and tracheotomy, and galvanism. But he says not one word about ether except this:—"The singular idea that a mixture of chloroform and ether is less dangerous than either of these substances used separately has been abandoned."

Here are eleven cases reported this year in six months in one medical journal. If we examine the same for 1868, we shall find fourteen cases, and in 1867, twelve, thus making thirty-seven deaths from chloroform reported in one small medical journal in two and a half years.

I set out with the intention of making a complete table of all the reported deaths from chloroform in the last five years, but I feel sick enough at heart already. Surely here are statistics enough whereon to base reliable conclusions. And does anybody believe that all the accidents from this agent find their reluctant way into our periodicals? The editor of the *Lancet* reports two deaths, the particulars of which he learned accidentally in private conversation. M. Barrier of Lyons states that "five deaths have occurred there to his knowledge, and only one case has been reported." No, no; the surgeons under whose observation these terrible calamities happen are far from anxious to see their names in print in such an unfortunate connection. And besides these who have died, how many do you suppose there are who have narrowly escaped death and have had the breath of life restored to them by artificial respiration and stimulants and galvanism? I can report three such cases; one where I was holding the deadly weapon myself. The patient came partially out from under the influence of that "perfectly safe mixture" of chloroform and ether, and I poured a little more on the cloth. Only two inspirations were taken when the pulse stopped beating under my finger, and the chest was as quiet as in death. Oh, the agony of those moments, seeming hours, while artificial respiration was being kept up and

strong ammonia applied! The anguish of bereaved parents, the coroner's investigation, perhaps blighted professional hopes—how they all rose up before me like a *fata morgana*!

Now, if we turn from all this and inquire what fatality has attended the use of ether of late years, we learn that there is not one single death attributed directly to it. Here we have complete safety substituted for imminent danger. We can give it without feeling obliged "to have at least one assistant with us," and without feeling ill at ease if the pole of a battery is not applied to the patient's neck ready for instant use. Yes, we can leave it to our patients to inhale themselves to relieve pain and go to our beds free from all anxiety. Surely, were Sydenham living, he would rank ether side by side with opium as the *magna dona Dei* to suffering mortals.

Now, what are the arguments employed by those who continue to use chloroform?

First, "It is only *occasionally* fatal."

So is ballooning. But who wants to "go up" either way? Professor Billroth has seen chloroform administered twelve thousand times, and has lost but one patient by it. But the fatal time came at last. "I have made ten quick trips with that boat," said the owner of a sheet-iron boiler on the Ohio river. "Then thank God for your past good luck," said the government inspector, "and don't tempt death any longer." Must we all keep giving chloroform till we lose a man? And besides, who wants to be the five-hundredth, or even the twelve-thousandth man to be stricken from life as by a thunderbolt?

Secondly, "Chloroform is more speedy in its effects, and it smells better than ether."

So does prussic acid.

Thirdly, "It requires less of it and it is more portable."

I would rather carry around a quart of ether than two ounces of chloroform and a bottle of ammonia and a powerful galvanic battery.

Fourthly, "It produces less nausea."

But it kills!

A beautiful monument has been erected in the Public Garden in Boston in commemoration of the most precious of modern discoveries, ether, and I would humbly suggest that there be erected over against it one of black marble in memory of the victims of chloroform. The names of the deceased could not all be inscribed on it in very large letters, but the initials might be. On the pedestal let there be an Englishman dying.

With one hand let him tightly clutch a bottle of chloroform, and with the other let him be "throwing up the sponge."

True, ether has an unpleasant odor, and it frequently nauseates, and it is more inconvenient for us to administer it; but all these objections sink into utter insignificance when we merely mention the paramount fact that it is *safer* than chloroform. I do not wonder that John Bull should stick to chloroform so pertinaciously, for it is a child of his own, and the next best to ours; but why we should adopt a child who will let death into our houses while we are sound asleep surpasses my comprehension.

I very much doubt whether Providence will ever vouchsafe us an anæsthetic the use of which will be unattended with inconvenience. There are obvious objections to it—such as the temptation to immoderate use of it. Men would drown in its fumes the remembrance of their sins. A *perfect* anæsthetic, "a *sweet*, oblivious antidote," a real nepenthe, will not probably be discovered in this world. We shall only find it when we pluck "the leaves of the tree of life." But we will strive for it as we do after moral perfection.

CLERICAL PATRONS OF VENEREAL.—Free trade in syphilis is the novel principle which certain clergy, under the leadership of a Dr. Charles Bell Taylor, have taken under their protection; and we are enabled, at least, to congratulate the Church on the ample field for their crusade which the subject affords them. In the Public Health Section of the Social Science Congress, Dr. Berkeley Hill had communicated the statistics of the working of the Contagious Diseases Act. He was followed by Dr. Taylor *contra*, and a scene followed, which is thus described by the *Times* reporter:—

"There then followed a scene of great confusion and disorder. A large number of persons, many of them apparently clergymen, had come to the meeting for the express purpose of protesting against the Act. In debate the advocates of both sides waxed warm, and the enthusiasm of those who fancied they saw in physical disease a Divine judgment against moral transgression was obviously much in the ascendant over the calmer views of more reasonable men. Excited gentlemen in white cravats surged tumultuously over the benches, vociferated, half a dozen at once, set the Chairman to rights about his ruling on points of order, and loudly applauded whatever seem-

ed to tell in favor of their views. At length, after a time probably without a parallel in the history of science congresses, and after resolutions and amendments had been put and stormed over, a resolution in opposition to the extension of the Act was carried by about two to one in a meeting of rather more than 100."

Cannot the vaccino-maniac fraternity take powers to add to their number by the annexation of these persons? They would be as impervious to facts, arguments, or good taste as could be desired for the service; and free trade in smallpox might be consistently combined in one agitation with free trade in the larger variety.

When persons who disclaim the possession of eyes, ears, and senses obtrude themselves into an assemblage of sensible men, they may at least be not unreasonably expected to keep down their effervescence. Their theory that syphilis is to be encouraged for penal purposes is hardly worth noticing.—*Dublin Med. Press and Circular.*

MRS. WINSLOW'S SOOTHING SYRUP.—A correspondent of the *California Medical Gazette* writes to that journal as follows:—

Some weeks since I was called to an infant of six months old, who was in a dying condition, apparently from the effects of a narcotic poison. It had taken no medicine except this soothing syrup, of which it had taken, within ten hours, two doses of about one teaspoonful each. I had the syrup, from which these doses were given, analyzed by a skillful chemist. There were 10 drachms of soothing syrup in the vial, and it yielded of morphine and other opium alkaloids, 1 14-100 grains, very nearly one grain to the ounce of syrup. This result astonished me. The printed directions for administering the medicine are as follows:—"For a child under one month old, 6 to 10 drops; three months old, half a teaspoonful; six months old and upwards, one teaspoonful three to four times a day until free from pain. In dysentery repeat the above dose every two hours, until the character of the disease is changed for the better." Here we have a dose of morphine equal to 10 drops of laudanum, given to a child of three months old every two hours, and double the quantity to a child of six months old.

I have always discountenanced the use of this preparation as I did not know its composition, and supposed it contained some anodyne, but I had no idea of its deadly strength. It is a familiar fact that children

are very perceptible to the influence of opium, and four drops of laudanum has been known to kill an infant of nine months. I think it important that this analysis should be published, that the profession, and through it the public, may be warned of the fearful effects of administering this dangerous and popular nostrum. The quantity used in the community is enormous; doubtless it has killed hundreds of children, and would kill thousands, were it not that by beginning in very small doses and gradually increasing, a tolerance of the immediate poisonous effects is induced, although the miserable little victims of domestic drugging are reduced to puny and cachectic creatures, that are carried off by the first disease that takes hold of them.

The specimen of soothing syrup analyzed was made by Curtis & Perkins, of New York, who are the only manufacturers. I have ascertained that there are about one hundred thousand two-ounce bottles of it sold annually in San Francisco, making two hundred thousand ounces of Mrs. Winslow's soothing syrup, containing about one hundred and eighty thousand grains of morphine, which are given annually to the babies of this State. No wonder that one-third of them die before they reach the age of two years!

From one of the Bulletins of the Public Library of the City of Boston for 1869, we take the following announcement to the medical profession:—

"It is not supposed we hazard a denial, if we assert that the Public Library of Boston offers facilities for investigation in medicine and surgery not equalled by any other collection in New England, and surpassed by few in the country, as it numbers at present not much short of six thousand volumes. Besides this, there is a large collection of pamphlets, all of which are now arranged, and will be, before many months are passed, catalogued, bound, and placed on the shelves. This department embraces over five per cent. of the entire general collection in the Bates Hall; and, heretofore, the use of this section has been over six per cent. of the whole issues of this hall. The profession in Boston and vicinity maintain so high rank in the investigations of their science, that it needs but be known how excellent a working apparatus this library offers them greatly to increase its usefulness. The ordinance of the city for the government of the library restricts the circulation of its books to "the citizens and



residents" of the city; but no visitors are ever denied the use of the books within the building. We aim in this department, as in every other, to be the literary purveyors of every class of students and investigators; and we rarely refuse to procure, through our agents in all the great book-marts of the world, any special monograph or other work that may be needed by any user of the library, if we do not chance already to possess it. Specialists may prefer to buy the particular books that they most require, rather than frequent a public library for the same, but there are some works, like Mascagni's *Anatomia Universa* (of which we have a magnificent colored copy), that few private collectors can well afford to purchase; while still others, like the long sets of the important journals of all countries, are too extensive for private shelves. Most of these last the medical student will find in this department of our library. The physiologist will find here a very excellent gathering of works on physiology. The larger part of Professor Brown-Séquard's library, when he left this country, was transferred to our shelves; and pains were taken to supply such deficiencies as we then had left. If any are still noticed, we should be glad to be informed of them.

**AMERICAN NAVAL STAFF RANK, AND THE CASE OF SURGEON GREEN, FROM A PARISIAN POINT OF VIEW.**—Under the head of "Military Despotism in the United States," the *Union Médicale* inveighs against the grievances of our naval brethren. Only it lays the chief blame on "General Grant," who probably has had no more to do with them than the man in the moon. Our Parisian *confrère*, however, makes some very just remarks on the treatment of Surgeon Green, concluding with these words:—Here is a man condemned for having done his duty, and by those who should have praised and rewarded him. It appears that liberty is not always a guaranty against iniquity; and that despotism exerts its baleful influence everywhere.

**A MIRACULOUS DOCTOR.**—Another prodigy of healing has become the rage in Paris, and the *bourgeoisie* are running after him with all the impulsive volatility of Parisians.

This new star is Dr. Girard von Schmitt. Already great people have availed themselves of his powers, said to be unequalled. Dr. Schmitt is supposed to have cured

Alexandre Dumas of cancer of the tongue, and a not less serious throat disease. He has healed M. de Barrère, Consul at Jerusalem, of a scorbutic affection, accompanied with gangrenous ulceration; relieved the Countess of Asck of a rheumatismal affection, from which she has suffered for fifteen years; saved Madame Brugean from cancer of the eye; protected thousands of other persons, if not from death, at least from fearful pangs. The editor of *L'Union Médicale* says, that on a visit to his house he saw there, "invited by the new-born celebrity of the young and skilful practitioner, patients of all nationalities."

Have we not Schmitts of our own? Where is Du Barry and the wonderful cure of a fifteen years' cough, No. 69,342?—*Dublin Medical Press and Circular*.

#### DEATHS FROM CHLOROFORM.

A man, æt. 50. Scotch chloroform administered on lint. "There were present at the time two honorary surgeons and an honorary medical officer, the latter of whom kept himself informed of the state of the patient's pulse, having his finger on it during the entire time. When I had administered the first dose, which consisted of about twenty drops, I proceeded to administer the second one, and, as I was about to apply it to the patient I was warned to desist, as his pulse had suddenly ceased. In an instant all appliances were brought into use for restoring the patient, but without effect."

The gentleman who reports the case concludes his record of the *post mortem* with the remark, that he is "inclined to think that no organic disease played any important part with regard to its unfortunate termination."—*Med. Times and Gazette*.

**Death from Chloroform.**—We find the following brief record in the *Chicago Medical Journal* of August last, of a case which occurred in "The County Hospital."

April 16th.—"Caries of ankle-joint, preparing for amputation. Middle-aged man, anæmic. Chloroform administered with a folded towel in a judicious and careful manner. One minute after the first inspiration a convulsive movement of the extremities occurred. A few seconds later the chloroform was removed and his head declined. After four or five convulsive inspirations at long intervals, he ceased to breathe. Face livid; pupils dilated; eyes and jaws open. The heart's action was maintained for forty minutes."—*Medical News and Library*.

## Medical Miscellany.

E. LLOYD HOWARD, M.D., and T. S. LATIMER, M.D., announce to the profession a new medical monthly, to be published in Baltimore and styled *The Baltimore Medical Journal*. The plan of this journal will embrace original communications, selected articles and translations—from home and foreign sources; reviews and bibliographical notices, with editorial notes on the current medical topics.

**NEW REACTIONS TO DISTINGUISH BETWEEN PHENOL (CARBOLIC ACID) AND CREOSOTE.**—Mr. Crump has communicated the following reaction to the *Chemical News*:—If fragments of caustic potash be added to a solution of phenol in chloroform, the potash becomes covered with a rose-colored coat, and when potash has been added, equal in quantity to about three times the weight of the phenol, the final result is a brown amorphous mass, soluble in alkaline liquids, and precipitated therefrom by acids. It seems to be a mixture of two substances. The second of these substances when treated with tetrachloride of carbon gives no reaction in the cold, but at 100° C. the liquid assumes the color of rosolic acid. When creosote from wood-tar is treated with chloroform and caustic potash, a reaction takes place very similar to that with phenol, but the product of the reaction is quite different, forming with sulphuric acid a deep crimson solution, from which a dingy green precipitate is thrown down by dilution. Moreover, the substance produced from phenol in alkaline solutions colors silk or wool brown, while those from creosote have no coloring power at all. —*Dublin Medical Press and Circular*.

**A NEW LESION IN BRIGHT'S DISEASE.**—Gouverneur M. Smith, M.D., Attending Physician to New York Hospital, calls attention to *deafness*, which is sometimes developed during the course of Bright's disease. This symptom, when transient and accompanying a lethargic condition of the patient, has been properly attributed to uræmia. The same symptom, however, in conjunction with others, aural in character, may be permanent, in which case he ascribes their occurrence to a peculiar lesion of the ear; a lesion peculiar in that it holds a relationship to the nephritic disorder, and is not, so to speak, of accidental origin.

Is it not proper to view the association of the aural and nephritic lesions in the same light as we regard the occasional co-existence of the ocular and renal?

He would ask the attention of those surgeons who are making aural affections a special study, to the opinion just expressed in reference to a Brighton lesion of the ear. It would seem desirable, when treating patients affected with obscure auditory diseases, to examine their urine both chemically and microscopically. A latent Bright's disease may thus be detected, and the cause of the aural malady thus be explained. —*New York Medical Record*.

**WOMEN AT CLINICS IN NEW YORK.**—Our New York correspondent writes:—"In New York the medical students are much more gallant than their brethren in Philadelphia. They permit the female

students to be present at all the clinics without any manifestation of unpleasantness; and occasionally we have seen a flirtation carried on by way of comparing notes." Of course this is exceptional, but none the less a fact. —*Medical and Surgical Reporter*.

**TO CORRESPONDENTS.**—Communications accepted:—Poisoning by Cyanide of Potassium—Cataract, &c., a Review—Double Spontaneous Dislocation of the Lens.

**BOOKS AND PAMPHLETS RECEIVED.**—Annual Report of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures and Condition of the Institution for the year 1868. Pp. 474.—The American Literary Gazette and Publishers' Circular. Christmas, 1869. A complete list of Illustrated and other Books suitable for Presentation and Rewards.—The Lady's Almanac for the year 1870. Boston: George Coolidge, 289 Washington Street. Small 24mo. Pp. 128. Cloth, gilt. Price 50 cents. Mailed post paid.—The Old Franklin Almanac for 1870. Containing a great variety of Statistics, Chronological Tables, and other useful matter. Philadelphia: A. Winch, 505 Chestnut St. Svo. Pp. 68. Price 20 cents.—Eulogium on Thomas C. Brinsmade, M.D. Read before the Rensselaer County Medical Society, by George H. Hubbard, A.M., M.D. Pp. 12.—Report of the best methods of Treatment for different forms of Cleft Palate. By William B. Whitehead, M.D., New York. Extracted from the Transactions of the American Medical Association. Pp. 12. With colored illustrations.

**DIED.**—In Potter township, Ontario Co., N. Y., Hazard Arnold Potter, M.D., aged 58—was graduated M.D. at Bowdoin College in 1835.

### Deaths in eighteen Cities and Towns of Massachusetts for the week ending Dec. 18, 1869.

Cities and towns.	Number of deaths in each place.	Consumption.	Prevalent Diseases.	
			1. Pneumonia.	2. Typhoid Fever.
Boston . . .	83	12	9	1
Charlestown . .	21	5	1	1
Worcester . .	11	2	0	3
Lowell . . .	20	6	2	0
Milford . . .	5	0	1	0
Chelsea . . .	5	0	2	1
Cambridge . .	12	3	2	0
Salem . . .	9	1	1	0
Lawrence . .	5	0	0	0
New Bedford .	9	0	1	0
Springfield .	7	0	0	1
Pittsfield . .	3	0	1	0
Gloucester . .	8	2	2	3
Fitchburg . .	2	1	0	0
Taunton . . .	9	3	1	0
Newburyport .	7	2	0	0
Somerville . .	5	0	0	1
Fall River . .	12	3	1	0
	233	40	24	11

GEORGE DERRY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending December 18, 69. Males, 40—Females, 43.—Abscess, 1—accident, 3—apoplexy, 2—disease of the bladder, 1—congestion of the brain, 2—bronchitis, 4—consumption, 12—croup, 1—debility, 1—diarrhoea, 2—diphtheria, 1—dropsy, 2—dropsy of the brain, 2—drowned, 1—erysipelas, 1—scarlet fever, 2—typhoid fever, 1—gastritis, 1—haemorrhage, 2—disease of the heart, 1—infantile disease, 2—influenza, 1—insanity, 1—intemperance, 1—disease of the kidneys, 3—disease of the liver, 2—inflammation of the lungs, 10—cerebro-spinal meningitis, 1—old age, 4—paralysis, 1—pleurisy, 1—premature birth, 1—puerperal disease, 1—pyæmia, 1—rheumatism, 1—scrofula, 1—ulcers, 1—unknown, 6—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 17—above 60 years, 17. Born in the United States, 47—Ireland, 28—other places, 8.

THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, DECEMBER 30, 1869.

[VOL. IV.—No. 26.]

## Original Communications.

### THE NOVEL DEFENCE ATTEMPTED AT THE TRIAL OF SAMUEL M. ANDREWS FOR MURDER.

ALTHOUGH under ordinary circumstances it would seem most undesirable to prolong into a public controversy a difference of professional opinion arising upon the witness stand, yet the effect upon the course of justice and upon the efficient administration of law, of the doctrine so persistently urged in the recent articles in this Journal reviewing the late trial of Samuel M. Andrews, seems to demand at least a fair and full statement of the whole case, lest what may be an elaborate effort in advocacy of a side, might, if unanswered, be accepted as an impartial review of the whole subject.

If it is fairly established that a man, well known to be entirely sane both before and after the commission of a great crime, may during the few moments necessary to its accomplishment have been so completely deranged as to have committed it without consciousness; and if the statements of the individual alone are to be taken as sufficient proof that such a state of mind existed, a blow has been given to the whole system of checking crime by punishment, from which it cannot easily recover.

The effect of such a doctrine and such a precedent is, however, I am aware, not an argument against its possible truth. It is simply mentioned as being the controlling motive for entering upon a discussion, which would otherwise be ill-advised as well as distasteful.

The first and in its public bearing the most important question to be considered is, whether it is fairly established that there is such a form of disease as would instantaneously force a previously sane man to an act of homicide, and after its commission as suddenly leave him well and sound: a question which, if fairly settled in the affirmative, must agitate us all with fears unknown before. The second question, far

less important as a matter of general interest, concerns merely the application of this remarkable theory to the case of Samuel M. Andrews.

### MANIA TRANSITORIA.

In investigating the evidence by which it is sought to establish this singular form of disease, one cannot help being struck at the outset by this peculiarity. The evidence is solely that of books, and of these not the most recent, and it is not sought even to be confirmed in the practical experience of the present time. Neither the eminent and learned writer of the articles alluded to, nor any present head of any insane institution of however wide an experience, can say that he has seen or known of such a case as would be that of Andrews if insane. The cases quoted to sustain the theory are cases of the past. They have been handed down from one author to another rather as the curiosities of disease than as types to be looked for and expected. Many of them were collected and first reported by an enthusiastic Frenchman, who, with many excellencies, was always ready to make a striking impression. All are most briefly reported. Some of them were evidently cases of continuous insanity and not instantaneous. In others there seems to be no proof that any insanity existed. Of the whole class it may safely be said, as has been well remarked by Bucknill, the best English authority on criminal insanity, that the evidence upon which they rest is unsatisfactory. With the enormously increased facilities for observation afforded by the hospital system of the present day, if such a form of disease really existed, the reported cases ought to have multiplied a hundred fold. Why is it that we are told to fall back upon the observations of Esquirol and Marc and Castelnau? With lunatic hospitals scattered at short distances over our land, each having a medical staff on the alert to make discoveries in their specialty, and all consulted upon most of the peculiar cases arising within the circle of their duty, why is this form alone unreported and unheard of? Why are they unreported any-

where except in defence of crime? And this leads me readily to the mention of a second peculiarity about the cases quoted to support the theory of transitory mania, which is most curious and most suggestive. In the general and well-known forms of insanity a certain percentage, and that quite a small one, are prone to homicide. Can we, knowing that only a small per cent. of the cases of mania of ordinary duration are homicidal, believe that all the cases, when it lasts but a few moments, are homicidal? Can it be believed that such a difference in the nature of the disease should be caused by the difference of duration, that all the cases of transitory insanity, if such a disease exists, should be homicidal? If there is a form of disease so short, should we not expect to find a large number manifesting insane symptoms of various kinds, a few of whom only were homicidal? And yet all the cases quoted by the learned writer were marked by a propensity to homicide. Is not this suggestive rather of a motive and an effort in all the cases to make out an excuse for crime, than of the disinterested discovery of a disease? If there is a class of cases in which a blind, unreasoning, irresistible impulse to kill is suddenly developed, should we not also expect to see a class in which other impulses to acts not criminal are developed with equal suddenness and power? Which is the more philosophical, the more reasonable—the belief that there are a few scattered cases of mania transitoria, in all of which the homicidal impulse exists, contrary to all analogy and to our experience with all the other forms of mental disease, or the belief that in the few cases recorded there is some error through deficiency of report, through deception to avoid punishment, or through mistaken sympathy? As to the possibility of so sudden a development, of so great a pathological change as would be necessary to give rise to an unconscious act of homicide in a previously sound person, we may certainly be permitted to doubt, but its improbability is certainly so great as to demand the most conclusive proof for its establishment. The well-established principle that the greater the improbability of a thing, the stronger must be the evidence in its support, should not be lost sight of in considering this case.

Sudden paroxysms of fury among the insane are not very uncommon. And this fact may without doubt be relied on to explain many of the reported cases of instantaneous insanity. The individuals in these cases were not under close observation

down to the moment of the outbreak, and they were instances of the common form of continuous insanity with occasional sudden exacerbations and paroxysms of violence. The question is well worth asking with regard to many of these briefly reported cases—how were they known to be cases of insanity? Evidently there must have been something in addition to what is reported, either in the attending circumstances or in the history of the cases, to stamp them with the character which is given them; otherwise they cannot be accepted. And we cannot well avoid the suspicion that were those additional facts given, the cases would lose their elements of wonderful peculiarity, and subside into the less romantic form of disease which we are daily witnessing.

To sum up briefly this whole matter of the existence of a form of insanity lasting but a few moments, and leading during that brief time to acts of homicidal violence, the question is simply one of balance between inherent improbability and the authenticity of the quoted cases. The improbability arises from the nature of the cases themselves, from their want of harmony with the well known laws of mental disease in general, and from their failure to appear under the far more scrutinizing and extended observations of the present time. The authenticity is impaired chiefly by the imperfect character of the reports. It may well be doubted whether any case has or can be quoted to sustain the theory in the present case, which will not be liable to the latter objection. And the case under consideration certainly so far transcends all previously reported, that if admitted it would form a new starting point for the theories of mistaken philanthropy and sympathy.

While the duty of shielding under the protection of their infirmity all who through the influence of insane impulses have incurred the menaces of the law, belongs preëminently to those devoted to the study of mental diseases, they should not forget that by breaking down the barriers between disease and crime they may injure the very class they are called upon to protect.

#### THE CASE OF SAMUEL M. ANDREWS.

The fact most relied on to prove the existence of insanity in this case was the evidence, which has not been disputed, of hereditary insanity in the family of the accused. And the importance of this evidence was intensified and rendered more striking, at least to a common-sense view, by the fact that his mother was at the time of his birth, and for some months previously, insane. In

estimating the value of evidence of hereditary insanity, it becomes necessary to ask what is inherited, what is transmitted from one generation to another. In transmission, as in other characteristics, insanity follows the same law as other diseases. With few exceptions it is liability which is transmitted, not disease. Nor is liability always transmitted. The most that can be claimed is, that to a certain proportion of the descendants a constitution similar to that of the parents is given, rendering them liable under favorable circumstances to the development of the same or similar diseases. Phthisis is a disease vastly more likely to be transmitted than insanity, and yet we find a part only of the offspring of phthisical patients liable to the disease. Rheumatism and gout are hereditary, yet we rarely find a whole family subject to them. And all of them, and insanity as well, can be avoided by many of those predisposed, by a carefully regulated course of life. From these facts follows the well understood and recognized value of evidence of hereditary disease as an aid to diagnosis in doubtful cases, as corroborative of some positive symptoms. But it also follows, that standing alone, the fact of hereditary predisposition is of positively no value whatever. If there are no actual symptoms of the disease present, hereditary tendency, no matter how strong, does not afford a sufficient foundation on which to build up an opinion that insanity or any other disease exists. We should not pronounce a person phthisical who had no cough, nor one rheumatic who had no pain or other symptoms, simply because their ancestors had these diseases. It would be equally absurd to pronounce a person insane without the usual symptoms, even if born of an insane mother. That the mother was insane during gestation and parturition, ought fairly to be allowed to be likely to increase the liability of her offspring, but still the inheritance would remain liability only. In the case of phthisis we know that it is not very unusual for a mother in an advanced stage of the disease to give birth to a healthy child, who may remain free from the disease through life.

The value, then, of the proof of insanity in the ancestry, which in this case was strong and positive, would depend entirely upon whether there were actual indications of insanity in the history of the case. If there were, it would strongly corroborate them, and a much smaller amount of evidence would be sufficient to establish the fact of the disease. If there were not, it

should not be allowed to have any weight whatever.

#### MOTIVE.

The presence or absence of a sane and ordinary motive is in very many cases sufficient of itself to stamp the character of a deed of violence as being either on the one hand a crime, or on the other the effect of insanity. The insane homicide acts either without any discoverable motive (probably never without some motive), or else from a diseased and unnatural motive. He kills because a superior power tells him to, or because he fears to be killed himself, or to send his victim to heaven, or to avenge some imaginary wrong, or in a state of dementia and fatuity. The sane criminal kills from one of the ordinary motives of crime—either revenge, or the acquisition of some personal advantage. It is easy to apply this test to the case under consideration, and it becomes almost conclusive, although with a most remarkable forgetfulness the learned writer of the articles alluded to assumes this to have been a motiveless deed. What are the facts? A will is made by the victim of the homicide, bequeathing a considerable amount of property to the man who kills him. The latter goes with the former to get it drawn, keeps it in his possession, and after the killing takes the earliest opportunity to secure to himself the fruits of the fearful act. This points so strongly to a sane and criminal motive, that it could not be shaken, except by very strong positive symptoms of insanity, of which there are none in the case.

#### THE SELECTION OF TIME AND PLACE.

This is another test to be applied to the investigation of the character of a deed. The sane criminal chooses darkness and seclusion. The insane homicide, believing, under the influence of his disease, that he is doing right, is usually indifferent to time and place, and is as likely to commit the work of violence in broad daylight and in the sight of men as elsewhere. If this deed was committed in the dark, in the most retired place to which the victim could readily have been brought, it would make another most important corroboration of sanity, if such were needed. In this connection it might be well to inquire whether—allowing for the argument's sake that Andrews was subject to sudden insanity—it would be likely to occur during a violent struggle. Reasoning from analogy and from the general laws governing the disease, we cannot very well resist the

conclusion that it would be less likely to be developed at such a time. Arising from an internal cause, the fixing of the attention by a fierce outward struggle would ordinarily seem likely to prevent an insane outbreak. Any strong external impression, any outward pre-occupation of the mind, is very effectual in the prevention of insane manifestations. And they are to be expected and dreaded when a lack of external impressions leaves the mind fully at the mercy of the inward disease.

#### CONDUCT AFTER THE DEED.

When the ordinary forms of mental disease are in question, one of the most important inquiries is into the conduct of the accused after the deed. The sane conceal and deny. The insane, not appreciating the wrong they have done, ordinarily do not attempt to conceal, and often avow it. This test, however, would not be conclusive, though strongly confirmatory. There are some demented persons who will conceal their evil deeds. In the form alleged in this case, the test would be less decisive from the fact that the accused was supposed to be sane immediately after the act. To a certain extent, however, attempts to conceal, denial of guilt, and eagerness to enjoy the fruits of the deed, must be considered as adding to the weight of evidence in favor of sanity. And it has been found impossible to point out any act in the conduct of the accused after the homicide which was different from what would be ordinarily expected of a criminal.

#### EXCESSIVE VIOLENCE UPON THE BODY.

The insane homicide often wantonly mutilates his victim, the sane seldom. Excessive wanton mutilation, injury without object, would certainly have weight in favor of the insanity of the person committing the homicide. If, however, all the injuries, though excessive, were directed to the sure accomplishment of the fell deed, they would not indicate insanity, and would militate strongly against the probability of an unconscious state. In the case under consideration, although an unnecessary number of blows were undoubtedly struck, yet they were all directed with unerring certainty to the accomplishment of a single purpose in a single way. No injury was inflicted upon any part not vital, nor any which appeared wanton, or without a fixed object in view—the making sure of death.

#### THE PREVIOUS CHARACTER OF THE DECEASED.

Undoubtedly the life of the accused was

subjected to a pretty close scrutiny, which not only failed to detect any outward deviation from an upright course, but which developed rather an unusually good reputation in every respect. This, of course, diminishes the likelihood of crime, and would increase the probability of insanity, if any positive symptoms had been manifested. But like inherited tendency it of course cannot be relied upon as a foundation upon which to build up an opinion that insanity really exists. The unpleasant truth is too often forced upon us, that we cannot always rely upon previous uprightness. Men apparently of the best lives will now and then be found to yield to the pressure of overwhelming temptation.

#### THE WEAPON USED

was a most unusual one, and its nature doubtless had a great influence, and justly so, in proving to the jury a want of any lengthy premeditation. But it can have little or no weight in the consideration of the medical question involved in the case.

#### CONCLUSION.

Starting, then, with the entire absence of any positive symptoms of insanity in the conduct of the accused, although he was under the observation of competent judges down to a very brief time before the deed, and almost immediately afterwards, and applying to his case the usual tests of motive, selection of time and place, subsequent conduct, and mode of commission, there would seem to be no good reason for the attempt to apply to his case a theory of disease of such doubtful authenticity as that of mania transitoria. \* \* \*

#### PERSONAL EXPERIENCE WITH THE HOT-BATH IN STRANGULATED HERNIA.

By BENJ. D. GIFFORD, A.M., M.D., Gloucester.

I HOPE it does not often fall to the lot of a medical man to experience, in his own person, the agonies of that most distressing surgical affection, strangulated hernia. We can gain some notion of the intensity of physical suffering by observation; but it requires the terrible ordeal of a personal experience to realize fully what we may be familiar with as a phenomenon in others. In my own case I had, some years before, provoked a hernia on the left side by horse-back riding; but by wearing a truss had effected a radical cure—so much so that no amount of violent exertion had re-produced it. Latterly I had worn no truss at all, but

at the time this accident happened to me (January, 1868), the descent of the intestine took place on the right side, and was the result of no unusually violent exertion. During the morning of the day upon which it occurred, I had worked from 11 till 12 o'clock in dressing a fracture; my position in standing being such as to relax the abdominal muscles. I experienced a peculiar feeling of weakness in the inguinal region at the time. I reached my office about noon, and had been there but a few minutes when I was summoned in great haste to an infant who had been poisoned with morphine. In an ordinary case I might have taken some precaution before exerting myself, but I forgot my threatened hernia and hastened to my patient. I worked vigorously over the child, keeping up artificial respiration, &c., my position being the same as with the patient I worked over an hour before—a stooping posture. I soon felt the intestine descend, accompanied with a good deal of pain; yet, considering my patient in infinitely greater danger than I was myself, I continued my efforts until the agony was insupportable. I went home and made every possible effort to reduce the tumor; it was about the size of a goose-egg, and was so tense and hard and fast becoming so tender that I found myself unable to effect anything but torture. I then sent for my friend, Dr. Lilly, who etherized me and attempted reduction, but failed. He desiring assistance, Dr. Griffin was called two hours later; in the mean time severe colicky pains came on, and the tumor was exquisitely tender. This time I was chloroformed and reduction essayed, but with no better success than before. I made up my mind that nothing but the knife would release me, and listened passively to the arrangements for the hot bath. The symptoms not being severe, it was determined, nothing to the contrary, to wait till morning. During the night, copious bilious vomiting took place, and my peritoneum became quite tender; but I got through it with the aid of a couple of grains of morphine—having no other effect, however, than to lull the pain a little.

At about ten o'clock the next morning, having previously prepared for the operation in case of failure, I was put into a full bath of 90° Fah., and hot water introduced till the temperature reached 110°, at which point it was kept till I almost collapsed. While in this condition taxis was employed and the tumor partially reduced; but as the peculiar gurgling sound was not heard and so much cedema left, it was not till the

afternoon that the loop was decided to have entered the abdomen, and the operation given up.

My case illustrates the utility of waiting and resorting to every known expedient before operating, when the symptoms are not extremely urgent. Erichsen teaches, to chloroform the patient and try taxis not exceeding half an hour; if not successful, then to operate at once. Of course in severe cases, in which the strangulation has existed for some time, such a proceeding would be eminently proper; but in cases like my own, with no stercoraceous vomiting and comparatively mild symptoms, I should not think it advisable to operate soon after the formation of the hernia, even though reduction could not be effected with the aid of chloroform or ether. This case yielded to the hot bath when those anæsthetics had failed, during the manipulations of the same surgeon.

#### TREATMENT OF THREATENED ABORTION.

By B. F. TASKER, M.D., Kendall's Mills, Me.

PATIENT, five months advanced, slipped and fell. Commenced flowing the next day. I was called the following day. Found the patient in considerable pain, from which she had suffered since her flowing commenced. She was nervous and excitable, not having rested for thirty-six hours. I had her placed in a cool room upon a mattress, and administered a grain and a half of opium and repeated the dose in two hours; after that, every four hours till the next day. Cool drinks and cool liquid nourishment were taken as required. On the following day I ordered one grain of opium every three hours, and followed up three days till the flowing stopped. I then put her upon iron. She made a good recovery, passed to the allotted time, and was delivered of a full-grown child. I should have said that she had aborted once or twice before.

I have since treated a number of cases in the same way with good success.

November 29, 1869.

THE PARISIAN MEDICO-LEGAL SOCIETY has appointed certain of its members to investigate the following questions: Poisoning by croton oil; the application of photography, drawing, and various processes of mensuration, to legal medicine; the resistance of newly born children to asphyxia, and tattooing; experimentally, poisoning by phosphorus.—*Dub. Med. Press & Circular.*

## CLINICAL EXPERIENCE WITH CHLORAL.

Translated by ROBERT AMORY, M.D.

HAVING come across the review by Dr. Bricheteau of the experiments on chloral made by Messrs. Liebreich, Dumas, Richardson, Spencer Wells, Dumarquay and Follet, Dierlafoy and Krishaber, Labbé, Gnyon, Giraldeés and Worms, Bonchut, and Personne, as well as some results of clinical experience by the reviewer, I translate his conclusions for the benefit of your readers, who may not have seen his article in the *Bull. Gen. de Thé.*, Nov. 30th.

1st. Hydrated chloral, or chloral hydrate, is a powerful sedative to the nervous system, both motory and sensory.

2d. If the hydrate of chloral is not crystalline and very pure, so that in the evolution of chloroform by the addition of potass. there is no brownish color produced in the residuum, it is either without action or may be very dangerous.

3d. A larger dose than 75-90 grains (5-6 grammes) should not be given at any one time to an adult, and to a child the commencing dose should be 15-30 grains.

4th. The preparations of chloral ought not to be made too long before the administration, for they lose their character and become inefficacious.

5th. The administration may be made by the mouth. Baths produce the same effect as when the stomach is used, but the latter is the better method.

6th. Its use should not be employed in patients who have organic disease of the heart or brain.

7th. It is on account of the production of chloroform in the blood, from its alkaline reaction, that the ingested chloral produces sleep and anæsthesia.

8th. It is dangerous in man to employ its hypodermic injection.

9th. The arterial tension is augmented by the influence of chloral, at the same time that a diminution in the frequency of the pulse is produced; this tension diminishes on awaking, as the sphygmographic trace indicates.

10th. The urine during the sleep produced by chloral is neutral; and, boiled with Fehling's liquid, it does not reduce at first the copper salts; but the next day it becomes, when the chloral has passed through the kidneys, more dense, and will cause the reduction of the copper salts; this may cause a belief in the presence of sugar in the urine, which does not in point of fact exist.

11th. Hydrate of chloral rarely causes vomiting, and never purges.

12th. The temperature is slightly lowered, by doses which are not toxic, which points to its being an algid medicament.

13th. By the hydrate of chloral the cutaneous perspiration is diminished, and the skin becomes dryer than in the normal state.

14th. This drug can be precisely dosed for the efficacious production of anæsthesia; whilst in the inhalations of chloroform for the same purpose, the vapor cannot so be dosed. The uncertain use of chloroform vapor makes its use very dangerous.

15th. The action of hydrate of chloral is exactly that of chloroform, but its production is slower, and its duration longer if the chloral is used.

16th. In some patients submitted to the action of chloral there is a muscular and moral excitement similar to alcohol drunkenness; but this intoxication is not disgusting nor disagreeable.

17th. In almost all there is a sleep, remarkable from a very pronounced anæsthesia, and rarely accompanied with hyperæsthesia.

18th. The anæsthesia is proportioned to the dose employed, and in the dose of 30 to 75 grains, according to the age, it is complete, and the cautery of Vienna paste may be used, or even teeth extracted, without causing pain.

19th. Compared with opium, which often causes vomiting, which destroys the appetite, which stimulates, heats, constipates, excites the cutaneous transpiration, produces slowly a heavy sleep, and leaves after awaking a *malaise* from prolonged sleep; hydrate of chloral does not produce vomiting, does not constipate, nor destroy the appetite; it dries and may even cool the skin; it quickly causes a light sleep which lasts some time; finally, on awaking, it leaves no heaviness of spirits nor feelings of somnolence, and can be taken several days in succession.

20th. In a large dose, this drug produces algidity, whilst opium produces heat and diaphoresis.

21st. A dose of 45 to 75 grains can be repeated two or three times a day without inconvenience, and there results two or three times several hours of sleep, separated by a short interval of wakefulness.

22d. As a therapeutic agent, the chloral is sedative to violent pains in gout, to atrocious sufferings from nephritic colic or from dental caries, or from burns. In other



words, it is the prime anæsthetic administered by the stomach.

23d. In the cases where a resort to chloroform is made, the chloral can be used to appease the pangs of natural parturition, to facilitate obstetrical operations and to combat puerperal eclampsia.

24th. Finally, it is the most prompt and efficacious remedy to employ in intense chorea, when we wish to cause a rapid cessation to an agitation which of itself threatens the life of the patient.

Why will not some of your readers who have a large obstetrical practice, test its benefit in parturition?

## Reports of Medical Societies.

BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.  
CHARLES D. HOMANS, M.D., SECRETARY.

Nov. 8th.—*Paracentesis Thoracis*; *thirteen pints of Serum drawn off*.—Dr. HODGES reported the case.

The patient was a man of average size, aged 23 years. The effusion commenced during an attack of pleuritis in February, and in June had nearly filled the left thoracic cavity. From August 15th to October 30th the symptoms were, however, so slight that he attended to light work and complained of shortness of breath only on going up stairs; Oct. 31st the whole left side of the chest was full, the intercostal spaces bulging out; *paracentesis thoracis* was performed, and thirteen pints, by measurement, of a greenish, slightly purulent fluid, were drawn off. During the operation there was a severe fit of coughing, and afterward the respiratory murmur could be heard in the upper part of the chest, though a careful examination could not be made on account of the weakness of the patient.

Nov. 1st.—The respiratory murmur was heard as low as the inferior angle of the scapula, and the heart, which had been dislocated to the right of the sternum, had returned to its normal position.

Nov. 7th.—There was still further improvement, and the patient's general health was excellent.

Dr. BOWDITCH said the amount drawn off was enormous, three quarts being generally the limit.

Dr. H. K. OLIVER had drawn away within a few months nine pints of serum from a boy of 14 years, and ten and a half pints of seropurulent fluid from a man.

Dr. JACKSON said the late Dr. Stedman once found two gallons of thick pus in the thorax after death; one gallon was the largest amount ever seen by himself.

Dr. BORLAND asked whether in cases attended with great effusion it were not better to tap the chest early rather than wait for absorption.

Dr. BOWDITCH said there were generally no unpleasant symptoms during the operation for thoracentesis with exploring trocar and pump. There is sometimes a stricture of the chest, and when that occurred he had usually withdrawn the trocar. In the case reported the patient had waited almost too long; Dr. BOWDITCH would operate after six weeks of illness. In over two hundred and fifty cases in which he had tapped the chest he had had but one in which the tapping produced apparently an inflammation of the skin, and subsequently unpleasant results. This case occurred three months ago in a child nearly dying from dyspnoea and exhaustion, having had a *perinephritic abscess which had opened into the chest*. A few ounces of foetid pus were drawn from the pleura with relief, but an erysipelatous inflammation of the skin of the thorax set in, and death ensued; at the autopsy the remains of the abscess were found in the abdomen, extending into the right lung.

To Dr. OLIVER, Dr. BOWDITCH said he had seen recovery ensue in one case only where the effusion was bloody, but he had seen few such cases.

Dr. WILLIAMS said Trousseau was in favor of tapping early in cases of pleurisy, as sometimes the effusion increases rapidly and death ensues suddenly.

Dr. WHEELER had lately visited a patient with effusion into the pleural cavity, who seemed pretty comfortable, and asked to have tapping of the chest which had been proposed put off till the next day, and this was agreed to; the next day the sick man again proposed a postponement, and seemed quite easy, but died suddenly a few minutes afterwards. At the autopsy the chest was full of fluid, the lung compressed against the spine, and not larger than the fist.

Dr. BOWDITCH thought that if a puncture had been made, the fluid let out and artificial respiration employed, possibly recovery might have ensued. Some years ago he saw a child with its chest apparently half full of fluid, and suffering from attacks of dyspnoea; it was thought best to wait before tapping, and in less than twenty-four hours the child died in one of these attacks. He thought it always advisable to ask of attendants whether the patient has

any sudden attacks of great dyspnœa, and, if so, it is well to operate immediately.

Dr. WARE had twice seen death occur within a few hours from sudden effusion into the pleural cavities after scarlet fever. Where the effusion was so rapid, and was still going on, he doubted whether any operation could save the child.

Dr. BOWDITCH thought the tapping might be repeated day after day if necessary; to Dr. HODGES he said these attacks of dyspnœa seemed to depend on dislocation of the heart, and may be caused by any little excitement.

Dr. JACKSON thought it probably as with diseased hearts, death taking place suddenly and unexpectedly after excitement.

Dr. BOWDITCH said that pretty hard work may be done by persons having a rather large quantity of fluid in the cavity of the pleura; he had once seen a case which was tapped, but dulness existed for years afterwards, and after death an encysted purulent deposit was found in the chest.

Nov. 8th.—*Fibro-cystic Neuroma*.—Case reported by Dr. CHEEVER.

The patient, a single woman of 35 years, applied for the removal of an encysted tumor of the neck of more than five years' duration. She had had pain and numbness of arms (she says of both arms) for five years. Had been treated with strychnia. Tumor now as large as an egg, and filling left subclavian triangle. On cutting down on it, it was found to be crossed by numerous nerves, supposed to be acromial and clavicular branches of the superficial cervical plexus. These were pushed aside, and beneath the cyst a solid mass was dissected out, which lay deep, and environed by nerves. Some branches were blended with it, and some were divided in its removal.

The patient is recovering, but has a partial paralysis of the left arm—chiefly the deltoid, triceps and radial extensors—indicating injury of the musculo-spiral and circumflex nerves.

On examination, the cyst, which was twice as large as the solid portion, contained a thick, albuminous fluid, but no pus. On section of the solid portion, white lines, soft and pasty, were seen running through it, and suggested degenerated nerves. The exterior was surrounded by eight nervous filaments.

Dr. WEBBER's examination with the microscope found degenerated nerve-fibres in the tumor, and a great many oil-globules. The solid mass was made up of cells of fibrous

tissue, with nuclei; and a few with large nuclei. He thinks it might be classed as a fibrous sarcoma. (Virchow.)

This tumor probably began as a neuroma in the neurilemma of the posterior cord of the brachial plexus (which makes up the musculo-spiral and circumflex nerves), enveloped some nervous bundles and unstranded the rest. Paget's nomenclature defines it best as a fibro-cystic neuroma, and he says the fibro-cystic tumor is frequently seated on nerves.

Nov. 22d.—*Villous Cancer of Breast*.—Dr. J. C. WARREN reported the case.

A female patient, under the care of Dr. GREEN, noticed a small swelling in the right breast some time last winter, which appeared shortly after a fall by which she received a blow on that spot. The tumor continued to grow until it reached the size of a small hen's egg, when it was removed by Dr. Cabot, in May last. It was soft, almost fluctuating, and appeared to the feel to lie by the side of the mammary gland. This organ was found to be implicated, however, and was removed, together with an elliptical portion of skin.\* The wound healed readily, but during the summer months a small red lump, the size of a pea, having the appearance of a blood-blister, appeared at the outer extremity of the cicatrix. This steadily enlarged until it reached the size of a grape, when the thin covering was punctured with a lancet, and a quantity of bloody fluid escaped, together with clumps of tissue resembling that of the original tumor. A second operation was performed in October.† The specimen sent to me by Dr. Ellis presented the following appearances:—The new growth lay directly beneath an elliptical-shaped piece of skin, about two and a half inches in length, in the centre of which is a round sharply cut hole connecting with a short sinus about half an inch in depth. Beneath the skin lay an encephaloid mass, having the color and consistency of somewhat softened brain-substance. A small piece snipped off with curved scissors, was found, under the microscope, to consist of cells closely packed together, united at some points by a delicate granular intercellular substance, with here and there a very fine fibril, though for the most part they seemed in direct apposition with one another. Most of the cells were large and spindle-shaped; there were

\* The tumor was examined microscopically, and pronounced fibro-plastic.

† The growth appeared to be contained in a cyst, which, when cut into, gave vent to a quantity of bloody fluid.

a few having several prolongations and a smaller number of round cells. They contained sometimes one and sometimes two large well-marked nuclei. The cells were arranged parallel to one another, and mostly in fasciculi, very frequently also in villous prolongations.

The tumor was allowed to harden during twenty-four hours in a 1-100 solution chrom. acid, when a few incisions were made with the scalpel. This showed the central portions which surrounded the sinus in a semi-fluid state, resembling rather thin pus. This fluid was filled with cells similar to those described above. On hardening for a day or two longer the capsule became more distinguishable from the contained mass, which was very friable, and appeared to break up into layers concentric with the capsule. At the centre the arrangement was irregular. Owing to its friable nature it was only possible to obtain a small and rather thick section, which, seen with a lower power, showed an arrangement like that of villi closely packed together, and united to the capsule by narrow pedicles. Small portions picked out with needles, colored in carmine and examined in glycerine and acetic acid, showed nothing that had not been seen before. Nowhere could any alveolar structure be found, such as is usually seen in carcinoma. No central stroma could be made out in the villi. The tumor was laid aside in alcohol, but not being fully satisfied with the above examination, I determined to make one more attempt to cut a thin section, and this time was successful in obtaining several which embraced both the skin and capsule and a portion of the growth united to the latter by pedicles.

The capsule was continuous with the lower layer of the cutis, and consisted of ordinary connective tissue infiltrated with small round cells, such as are seen in inflamed tissues. From the inside of the cyst wall sprung the pedicle of the new growth, giving off delicate branches, from which were suspended on either side rows of cells resembling closely in their arrangement and shape columnar epithelium. At some points the branches nearly met, so as to form alveoli containing masses of cells. An arrangement similar to the above was found to obtain in all the cuts made.

This growth, in many points, bears a strong resemblance to epithelial cancer of the columnar variety; yet the prominence of the villi both in the examination of fresh portions and in the sections afterwards made, was sufficiently marked to lead to

the conclusion that the specimen was one of villous cancer, notwithstanding the fact that its occurrence in this organ is extremely rare. Indeed, no mention of such a case is made in the works of many of the most prominent German pathologists.

It is interesting to compare the anatomy of this form of cancer with ordinary alveolar carcinoma, whose microscopic structure resembles it in many ways and whose gross appearance may be very different. The mode of development of the two is considered by Rokitsansky to be the same. The villi do not appear in the earliest stages of the development of this form of cancer, but the dendritic vegetations, as Rokitsansky calls them, take their rise at a later period from the trabeculae of the stroma. It is clearly nothing more, he remarks, than medullary carcinoma, with predominant stroma formation.

NOTE.—Since the above case was reported, a new growth has taken place in the substance of the pectoral muscle, beneath the old cicatrix. This grew rapidly, and when removed by Dr. Cabot was about the size of a hen's egg. It was also inclosed in a capsule, and under the microscope showed the same villous arrangement.

Nov. 22d.—*Villous Cancer of the Eye*.—Dr. H. DERBY reported the case.

C. H., aged 36, came to the Infirmary in Charles Street Sept. 6th, 1869, complaining of failing vision of the left eye, which he had noticed for the preceding three weeks. Owing to the fact of his being a Swede, and almost entirely unacquainted with English, no estimate of his remaining vision could be made, and no accurate history of the case obtained.

The eye was externally normal. Oblique illumination showed a rounded tumor projecting into the vitreous from just behind the upper-inner edge of the lens, coming apparently from the ciliary region. This tumor was evidently beneath the retina, the vessels of which could be seen to pass over its surface.

In view of the rapid development of the growth, removal of the eye was strongly urged, but declined by the patient. The case was exhibited to the Medical Improvement Society during the first half of September.

Nov. 15th he again presented himself. The whole globe was now much congested, the pupil closed and the iris pushed forward. Severe pain had been suffered for a fortnight past. Enucleation was again proposed and performed Nov. 16th.

Dr. B. JOY JEFFRIES, microscopist of the

Charitable Eye and Ear Infirmary, examined the tumor and made the following report :—

"With regard to the enucleated eye submitted to me for inspection, I would report the following :—

"The globe seemed of natural size, elasticity and firmness, the cornea opaque. Optic nerve cut close to the globe looked normal. The globe was divided by section into an anterior and posterior half, in doing which a growth or tumor was divided. The retina remained attached at the papilla and folded together, stretched forward round in front of the anterior mass of the tumor, up to where the displaced crystalline lens laid against the sclerotic. The choroid was in place, except under the tumor its pigment was scattered and broken down. The sclerotic was considerably thickened over the entire surface occupied by the tumor. The anterior half of the eye was not more dissected than to find that the lens was displaced and that the floating mass of the folded retina was distinct from and not attached to the tumor. The folded retina had rather a yellowish color; where it laid against the tumor *behind*, there seemed to have been inflammatory exudation, none in front. Vitreous had disappeared.

"The tumor may roughly be said to be a black flocculent mass arising apparently from the choroid or the sclerotic beneath; this latter was inflamed when thickened. The flocculent mass of the tumor is as black as melanosis, darker than the choroid left. Where the tumor sprung from the choroid it could not be followed.

"Under the microscope the tumor when teased out consisted of some stroma and large spindle-shaped cells, with nucleus and nucleolus, some broken, some with prolonged ends, some quite filled with pigment. The microscopic field was quite filled with pigment cells and granules. The cells of new growth would be found in long lines or clusters easily separating.

"By cutting off under water some of the flocculent ends, as they floated up from the surface of the tumor, and getting them on to the slide, they were seen to be villi studded with cells which readily separated, the covering glass breaking them off. In several specimens this attachment of the cells was quite perfectly seen. I regard the growth, therefore, as "villous cancer." In a hasty research I do not find that this form of cancer has been seen or supposed possible in the eye, it being a form connected with mucous membranes.

"Drs. CALVIN ELLIS and J. COLLINS WARREN

concur in my opinion, they having studied the specimen with me.

"The posterior half of the globe is now hardening in chromic acid; the anterior half is in a weak alcoholic solution. Further examination of these will no doubt confirm my diagnosis."

## Bibliographical Notices.

*Cataract and its Treatment, Medical and Surgical.* By JABEZ HOGG, F.L.S., Senior Assistant Surgeon to the Royal Westminster Ophthalmic Hospital; Ophthalmic Surgeon to the Royal Masonic Schools; Consulting Ophthalmic Surgeon to the Hospital for Diseases of Women and Children, Westminster; Medical Officer of the Progress Life Insurance Office; Fellow and late Vice President of the Medical Society of London; Fellow and Hon. Sec. of the Royal Microscopical Society, &c. Author of *A Manual of Ophthalmoscopic Surgery*; *The Microscope, its History, &c.* One Shilling. Pp. 35.

On looking over the numerous monographs on cataract, published within the last ten years, it will be found that while many authors have endeavored to throw fresh light on the pathology and progress of the disease, the majority have contented themselves with either introducing some new plan of operation, or detailing their respective experience while following out the methods already in vogue. Mooren, Jacobson, Bowman, Critchett and von Graefe have successively advocated important modifications or originated new operations; while, among others, Steffan, Dantone, Rothmund and Knapp have collected operative statistics having a most important bearing on the methods now employed.

At a time like the present, when the revolutionary epoch of ophthalmic surgery has been succeeded by a new, but not yet fully established regime, contributions to the literature of so important a subject as the cause and cure of cataract will be hailed with interest and examined with care. Few so fertile fields of inquiry remain. Any real discovery, throwing light on the prevention or medical treatment of this disease, would be greeted with the utmost satisfaction.

Mr. Jabez Hogg is the author of a treatise on the microscope, with which we do

not happen to be acquainted, and a manual on the ophthalmoscope, with which we do. The merits of the latter extraordinary work are so well understood on both sides of the Atlantic that any allusion to it, in this connection, would be superfluous.

In the present pamphlet the writer states his object to be the throwing out of observations which "may subserve the purpose of a more accurate diagnosis, and promote a more rational treatment of diseases of the refracting media of the eye." The catoptric test has, it seems, been superseded by the ophthalmoscope. As important as this discovery is another, which furnishes us with a "synthesis of cataract," and which seems to be that "certain conditions observed in conjunction with opacity of the lens, depend partly on changes, the result of simple physical forces." Saccharine or saline cataract results from saturating the blood with certain substances, and disappears as the producing agent is eliminated. Why, then, may not cataract be cured without operation, by discovering and removing or neutralizing its cause? Mr. Hogg is persuaded "that, by supplying to the organism its lost material, osmotic nutritive action will be restored, and the further progress of disease be arrested. It only remains for the medical practitioner to draw reliable physiological deductions from the important facts revealed"—a task which Mr. H. gracefully waives in his favor.

We are favored with a history of the manner in which Sir David Brewster cured himself of an attack of cataract, forty years ago. *Ne sutor ultra crepidam* was never more strikingly illustrated than by the story of this distinguished savant. It seems he diagnosed a fissure of his own crystalline lens, and attributed this to a process of desiccation, owing to a deficiency of the liquor Morgagni. After trying various internal remedies, he settled down on the pulvis salinus compositus, and in eight months had the gratification of having the laminae of the crystalline body "suddenly brought into optical contact."

Pondering subsequently on the rationale of his cure, he was led to evolve two rules for the treatment of incipient cataract—the one being the evacuation of the aqueous humor, the other the injection of distilled water into the anterior chamber, after evacuation.

Mr. Hogg encouragingly adds that the latter expedient has been resorted to "without having been productive of injury of any kind." The non-existence of such a fluid

as the liquor Morgagni, if known to him, in no wise appears to shake his faith in the conclusions of Sir David Brewster. He expresses increased confidence in the belief that we ought to obtain perfect success in the medical treatment of cases of cataract. He has even notes of "a great many cases medically treated with considerable success." He has delayed the progress of cataract, and prevented cases passing from the incipient stage. Such statements may carry comfort to the mind of a non-professional reader, but, in the absence of any accurate measurements of vision, are of course destitute of scientific value.

The well-known experiments of Sperino on the evacuation of the aqueous humor, for the cure of cataract, are related. It is, however, admitted that in some obdurate cases, the removal of the cataract is necessary. With a passing fling at certain modern modifications of the operation which he is disposed to think "frequently end in mutilations of eyes, rather than restoration of sight," the author states the method followed by his colleagues and himself at the Royal Westminster Hospital. It is the flap operation, as performed by Guthrie. "My colleagues and myself still give it the preference it so well merits, and the unvarying results may well challenge comparison with those obtained by any other mode of operating, in any eye institution in the world."

The last six pages give Guthrie's account of the preparations for the operation of flap extraction, in his own words. The operation itself is not described, nor is any other method alluded to. The employment of anæsthetics receives no mention.

Audacity could go no farther. That a claim should be gravely put forward that a hospital, with which the author is connected, furnishes statistics of the operation for cataract that will compare favorably with those of any other institution; that this claim should be unsupported by one tittle of evidence in the shape of tabular statements or collected statistics; and that the operation employed should be one which ignores each and every improvement of modern science, either in the way of alleviating present pain or ensuring ultimate recovery; almost transcends belief.

It is to be hoped that the good sense of Sir David Brewster has, ere this, taught him to disavow the imperfect theorization and hasty conclusions made, on the subject of cataract, nearly forty years ago. His distinguished services in other portions of the field of science may well excuse a few

errors on a point with which he could not be expected to be fully familiar. For Mr. Hogg, however, we can find no such extenuation. It is impossible to speak, save in terms of condemnation, of a work which professes to convey information on a most important subject, and which, in place of imparting knowledge, contains only statements unsupported by evidence, and claims as arrogant as unfounded; the whole glossed over with a thin layer of experimental physiology, derived from other sources. And our only excuse for a notice as extended as the present, is our desire to protect the unwary reader, be he medical or lay.

Opposite the title page are two colored lithographs, claiming to represent the eye and its interior in health and disease. That this claim belongs to the class just alluded to, will be evident on inspection. H. D.

## Medical and Surgical Journal.

BOSTON: THURSDAY, DECEMBER 30, 1869.

### SYNCOPE.

#### *Three forms of Syncope Demonstrated:—*

*One by Arrest of the Heart's Action; the Second by Arrest of the Respiration without Asphyxia; the Third by Arrest of some of the Interchanges between the Blood and the Tissues.*

Dr. BROWN-SEQUARD in his *Archives de Physiologie* has a short paper on this subject, which, with the exception of the opening sentences, we here translate.

Of the three kinds of syncope on which I propose to speak, one is perfectly well known—the arrest of the heart's action. I will merely say that this arrest may take place not only in consequence of irritation of the par vagum or of the rachidian bulb, but also—1st, through the influence of irritation of the sensory nerves of the limbs and trunk, as was shown by Majendie; 2d, through irritation of different parts of the encephalon in the neighborhood of the bulb and of the cervical spinal marrow, as I have often demonstrated during more than twelve years (vide *Journal de Physiologie*, April, 1858); 3d, from irritation of the great sympathetic in its abdominal portion, a fact which I discovered by experiment on mam-

malia a long time before Goltz met with it in experimenting on frogs (vide *Archives de Médecine*, Nov. 1856, p. 583); 4th, as the effect of a special influence appearing to proceed spontaneously from the cerebro-spinal system and accompanying each inspiratory effort, and manifesting itself with energy, especially under certain circumstances, such as the latter moments of certain forms of agony [distress?] for example (vide my paper on the association of the inspiratory efforts with the arrest of the heart's action, in the *Journal de Physiologie*, &c., 1858, p. 512). When it occurs alone [uncomplicated]—which is very rare—this form of syncope does not produce sudden death (I mean death *absolutely* sudden), since respiratory movements, agitation, and finally convulsions of agony then take place.

The second form of syncope is less known, although it has been the subject of much writing and discussion. It consists in the arrest of respiratory movements without asphyxia. In 1858 I had already pointed it out (vide *Journal de Physiologie*, &c., April, 1858, p. 223 et seq.; and 1860, p. 151 et seq.), as showing itself upon simple puncture of some parts of the base of the encephalon. When respiratory movements are suddenly arrested by irritation of the rachidian bulb, or the parts of the nervous centres which are near it, the heart most frequently continues to beat with more or less force and rapidity. This arrest of the respiration is not due to a reflex spasm of the diaphragm or of the intercostal muscles, but to cessation of action on the part of these muscles, caused no doubt by cessation of action on the part of the respiratory nervous centres. (Vide for the mechanism of this arrest, *Archives de Physiol.*, 1868, pp. 159 and 317.) In the immense majority of cases the arrest of the respiration, which is provoked by irritation of the par vagum, by irritation of the abdominal ganglions of the great sympathetic, or by irritation of certain parts of the nervous centres—that arrest coexists with the third cause of syncope, which I shall presently mention; and then there is for that reason no asphyxia.\*

\* The phenomena which characterize asphyxia (agitation, convulsions and elevation of temperature) are caused by a rapid augmentation of the quantity of car-

When, in December, 1868, and January, 1869, I repeated my experiments relative to the influence upon the respiratory movements of section of the lateral column of the spinal cord, I several times saw the respiration suddenly and completely suspended on both sides at the moment of section either of a single lateral column (a cord of one side) or of a lateral half of the spinal marrow in the upper portion of the cervical region. Figures 1 and 7, plate v. [these are in a previous number of the *Archives*] show the lesions produced in two of those experiments in which death took place suddenly, without the slightest trace of agony being evinced by the muscles of animal life. The three forms of syncope existed in these two cases, incompletely as to the heart, which continued to beat feebly for two or three minutes; but completely as to the arrest of the respiration and as to the suspension of certain phenomena of interchange between the tissues and the blood. I have ascertained, as I have already stated (*Archives de Physiol.*, No. of March, 1869, note 3, p. 299), that it is especially the irritation of the lateral column—along by the origins of the spinal nerve—which is capable of producing the arrest of the respiration. This influence exists as concerns the latter roots of this nerve, but it is much more powerful at the level of its first roots (those of the bulb).

The third form of syncope, which has not been hitherto investigated, is too important and too complex for me to attempt to fully describe in this short paper. I shall ere long give, in a special monograph on the subject, the details of the facts which I have observed in this connection. But, in making investigations upon the causes of the absence of agony in cases of sudden death from irritation of the par vagum, of the abdominal portion of the great sympathetic, of the spinal marrow, or of the encephalon, I long since ascertained (vide *Journal de Physiologie*, &c., 1860, vol. iii. p. 154) that the venous blood is of a color much less deep than it is in the normal condition, and is sometimes as red even as the arterial

blood. This peculiarity, and another quite as interesting—to wit, the rapid lowering of the temperature—are the two principal facts which demonstrate that certain interchanges between the tissues and the blood have not taken place, or at least are notably diminished. It is very remarkable that in animals presenting these peculiarities, by consequence of either one of the three causes, which, according to my experiments, may produce them—to wit: energetic irritation of the par vagum, of the cervical portion of the spinal marrow, of the isthmus of the encephalon,\* or finally of the abdominal portion of the great sympathetic†—the vital properties of the contractile and nervous tissues last longer than after other kinds of death, and especially after death from uncomplicated asphyxia or from rapid hæmorrhage. Furthermore the cadaveric rigidity appeared later and lasted longer in animals dying by these different forms of syncope than in those where death has been preceded by struggles of distress.

In man, sudden deaths, caused by wounds, emotions, &c., sometimes present also the characteristics of the third form of syncope we have just mentioned. What has been called "shock, concussion, collapse, *traumatisme*," following upon wounds or operations, is in reality only a lesser degree of the three forms of syncope, which it is the object of this brief paper to notice, and to distinguish from each other.

We present our acknowledgments for a copy of the "Annual Report of the Board of Regents of the Smithsonian Institution," &c., for 1868. Washington: Government Printing Office. 1869.

\* For the benefit of those whose only text-book of anatomy may be Wilson's, we take from Cruveilhier the following definition:—"The term *isthmus of the encephalon* comprehends that part of the encephalic mass which consists of "the pons Varolii and the middle peduncles of the cerebellum, the peduncles of the cerebrum, the tubercula quadrigemina, the superior peduncles of the cerebellum, and the valve of Vieussens." It is the common point of union between the three great divisions of the cerebro-spinal axis, viz. the medulla spinalis, the cerebrum, and the cerebellum.—En.

† In one case, in a rabbit whose thorax had just been opened, I have seen the three forms of syncope produced by galvanization of the diaphragmatic nerves. The arrest of the heart's action was incomplete; but the two other kinds of syncope were as complete as after irritation of the rachidian bulb or of the par vagum.

bonic acid in the blood. These phenomena in the third of the forms of syncope which we set up, are wanting, for the very simple reason that their cause does not exist.

MR. EDITOR,—In your extract from the Annual Report of the Massachusetts Charitable Eye and Ear Infirmary, in the last number of the JOURNAL, you give us credit for the sixty-eight operations for cataract, done within the year, and divide our results into successful and unsuccessful only.

I must beg you therefore to notice the fact that to these results we have appended a table, giving an accurate statement of the amount of vision obtained in forty-seven of our successful cases, being all in which we could procure an examination. It is from such statements alone that the relative value of the different methods of operation can be properly estimated, anything more general being valueless for scientific purposes.

Very truly yours, HASKET DERBY.

One of the Surgeons Mass. Charitable Eye and Ear Infirmary.

Boston, Dec. 27, 1869.

#### POISONING BY THE BITE OF A RATTLESNAKE.

—From a letter from Dr. F. Williamson, of Waynesville, Ohio, we quote the following :

A short time since I was summoned to see a little girl aged 12, who had been bitten by a rattlesnake forty-eight hours previous. She was bitten on the right foot, and the swelling had extended to the hip. Two physicians had been attending her, and used the ordinary remedies. I employed carbonate of ammonia with whiskey, and applied to the limb, from foot to hip, a cold alkaline solution. She was suffering from intense pain, and had slept but little from the time she was bitten. Her pulse was 120, quite feeble, and symptoms of impending dissolution were present. Soon after the external application was made she became quiet and slept soundly. The swelling was reduced in forty-eight hours, and the pulse became less frequent. She was from this time relieved from pain, and recovered.

We make the following extracts from one of a series of admirable letters in the *Boston Daily Advertiser*, on the Insane Asylum project. We invite special attention to the paragraph beginning with the words "The building should be low studded." A little reflection will show the soundness of the position thus taken; which, yet, is quite opposed to the common impression.

"The question for the tax-payers of Boston to consider is, Shall there be built, at vast expense, a palace for insane foreign paupers?"

"My first reason for saying 'No' has already been given. It is not absolutely

necessary. Nearly all the present inmates are now, in all respects—in cleanliness, warmth, ventilation, sunshine, food and quiet—better off than they ever were before in their lives. Why build a palace for these poor insane creatures, while their families and friends outside occupy the wretchedest habitations to be found in Massachusetts? Prevention is better than cure. If money is to be spent for the class of inhabitants from whom most of these come, why not spend it in removing from their habitations the generators of insanity—the filth, foul air, foul water, bad food, crowded, dirty, dark, unventilated rooms, which now drive the men to the drinking houses and the women to despair—and in letting in sunshine and pure air, and in executing the excellent laws that now exist, unregarded, which apply to tenements for the poor?"

"But, if a new asylum must be built, let it not be at such enormous cost.

"The Board of Directors of Public Institutions have an opportunity of building an asylum which shall exhibit all the improvements that have recently been made for such institutions, and thus be a model, a blessing to Boston and to all parts of the country. To be valuable as a model, it must not be costly. It should be built in the simplest and most economical style. Everything should be done for the comfort of the inmates. Those who are perfectly harmless might be placed by themselves in little modest houses, in the quiet of a garden, surrounded by flowers and beautiful shrubbery, under the care of one or two gentle and patient women, thus giving occupation to excellent and experienced nurses and other persons fallen in fortune, who are now living an anxious life of labor and care, trying to support themselves by taking boarders. \* \* \* \*

"The building should be low-studded. With the same openings to receive fresh air—with the same openings to send out foul air, a room of given length and breadth will be twice as well ventilated, and warmed, if it be 8½ or 9 feet high, as it will 17 or 18 feet high; as pipes that will let out all the foul air from the low-studded room in an hour, will require two hours to take it from the higher room; and the air of the latter will thus be left always somewhat foul; and, in the high-studded room, the fresh warm air will immediately rise to the upper part of the room, and there remain, above the heads of the occupants. \* \* \* \*

"A modest, suitable building or buildings, might be easily erected for a third part of the lowest sum proposed; and be all the



better and more ornamental for its simplicity. Whenever built and at whatever cost, it will have to be paid for by the tax-paying inhabitants of the city. \* \* \*

"If the contemplated palace should be built, it would not long want occupants. The news would speedily reach Ireland. Pictures of the building would be sent there. Families liable to insanity would be invited and aided to come to Boston, and the squalid, unhealthy habitations which would receive them would soon complete the work of developing the inherent insanity.

"I will only add that, if the hospital must be built, I see no insuperable objection to any part of Wintthrop for its site, except the bare, bleak point which has been selected for it.

G. B. E.

We make some extracts from the report, in the New York *Medical Record*, of a successful case of transfusion, by JOSEPH BUCHSER, M.D., of New York. The patient, Mrs. H., aged 24, had exhaustive and repeated hæmorrhage from various emunctories, and presented extensive extravasations.

"Early in the morning of the 15th of June, her husband informed me that she was in a dying condition. Her respiration was then 60. Pulse 140. Since the previous evening no nourishment remained in her stomach. Was delirious during the whole night, lay in an apathetic state, gave painfully short and confused answers.

"Already, on the 14th, I had spoken to her husband of transfusion, informing him of the danger of the operation, and of the slim hope. I repeated the proposition to-day, and it was immediately accepted by the husband.

"I applied sinapisms to the epigastrium. Ice and tinc. moschi., which I gave, again rejected. Pulverized moschus remained. Dr. Guleke, who had previously seen the patient, kindly declared his readiness to assist me.

"After a satisfactory trial of the transfusion syringe of Eulenburg-Landois, we proceeded to the operation. We banded her right upper arm, previously having done the same to her vigorous and healthy husband, aged 27. A graduated glass, ready to receive the blood, and syringe, were lying in water of 40° C. The median basilic vein was the most prominent. I made an incision of an inch in length, and dissected the skin till the vessel appeared, covered by its sheath. The cellular tissue of the vein was raised and cut, a soude in-

troduced in the hollow, the cellular tissue in both directions separated, and the vein was free.

"An eared curved soude, provided with two silk threads, was pushed under the vein; both threads were separated at a distance of about 6". Thus by raising these threads every flux and reflux of blood was impossible; at the same time the influx of air after the opening of the vein was prevented.

"We then proceeded to the venesection of the husband. During a powerful flow of blood, a solution of carb. soda,  $\text{Na O} + \text{CO}$ , was added—2 grains to 5ij. aq.; as far as it united with the blood the same took a lively red color. Lifting the vein, a V-shaped incision was made with a small scissors. The large syringe of Eulenburg-Landois was rapidly filled, surrounded by a warm cloth, the canule affixed, the air expelled, and the point of the syringe introduced into the vein about 12". The transfusion of about two ounces was easily accomplished. At once a decided resistance was felt; immediate change of position of the canule proved of no avail. The syringe was withdrawn, the canule detached; coagulated blood was found in it. Syringe and canule were emptied and cleaned, about three ounces of fresh blood were received in the instrument, and above one ounce again was injected.

"The patient, who could not possibly be anesthetized, underwent the operation with ease.

"The vein was on both sides underbound; the patient looked instantly refreshed, and said, 'I feel better.' She relished at once a glass of claret and water.

"In three quarters of an hour the operation was accomplished. Pulse immediately after the operation had fallen to 116; resp. 16. One hour later, pulse 108; resp. 18.

"During the afternoon the patient felt very hungry and thirsty; took light food and drank a pint bottle of claret. Evening.—Pulse 116; resp. 22; temp. 37.5 C.

\* \* \* \* \*

"Ten days after the operation, patient left her bed, walked her room several times, felt from day to day better and stronger. Pulse 84-94.

"July 1.—Patient received ferr. carbonat. alcohol, and drank daily two quart bottles of claret. Previous to her illness patient was never used to wine, and now stated that she could drink a quart at once without feeling any ill effect.

"The wound did not readily unite. Two days after the operation a thrombus formed

itself in the vena basilica, which could be traced as a hard string three inches upward. Local applications of cold compresses were made; twelve days after the operation no trace of induration in the vein could be felt. Only ten to twelve days after the operation the wound began to turn reddish; until then the cellular tissue remained entirely colorless; a small, healthy and strong granulation was formed, and on the eighteenth day after the operation the wound was closed.

"July 7.—Patient enjoys a good appetite and takes moderate exercise. Four days ago, I was again called to the patient and found her suffering from a prolapsus recti. Reposition was made. Suppositories of tannin and opium were ordered; prolapsus returned several times. Above the sphincter ani intern. we found a circular mass, which was sensitive to the touch. Tepid injections of water had a soothing effect; and a discharge of matter, lasting two days, relieved the patient. \* \* \* \*

"The result was successful, and still only three ounces of non-defibrinated blood were injected, the globules of which were only partly saturated with oxygen, as indeed it cannot be otherwise in this method of operation, and yet the effect on the central organization of the nervous system was such that the patient awoke from her soporific state and only then returned to full consciousness; vomiting disappeared, and a continuous and voracious appetite followed. \* \* \* \*

"The reasons why this operation is so seldom attempted are several. According to our notion they are:—

"1. The supposed danger of the operation. 2. Expensive instruments.

"1. Dumas and Prevost, Brown-Séquard and Panum proved that defibrinated blood acts as nourishing and as reviving as such containing the fibrine. The first degree of coagulation begins at once; even with all precautions, after ninety seconds; the latest after six minutes; generally after three minutes if much male blood is employed. Thus Panum positively recommends to operate with defibrinated blood, stating that if coagula are injected, emboli in the pulmonary arteries are formed, by which diminished flux of blood to the heart and medulla oblongata arises, resulting in immediate death. Panum's experiments were unknown to me before the operation.

"On the other hand, Martin, in Berlin, and others, transfused with non-defibrinated blood, and assert that a minimum of coagulated fibrine is harmless.

"The experiments of Panum are so profound that they are convincing at once; besides the blood can be defibrinated and filtered in a time of six to eight minutes, and at least this time is wanted to make the vein free, so that the principal objection which is made against defibrination falls away.

"Should the defibrinated blood get cold it can again be made warm; besides there is not any danger if it is some degrees below the temperature of the body; and transfusion made with cold blood would only produce a short-lasting chill without any consequences.

"Therefore, if transfusion is made with defibrinated blood, the operation will be without danger—supposing that no air enter the lumen of the vein. The entering of the air becomes impossible if the operation is performed after the method of Dieffenbach, which we have adopted and described.

"2. Transfusion will never be generally exercised in practice as long as the syringe of Eulenburg-Landois costs eighty dollars. Its straight canule, however, is of no practical use, and if it were bent rectangularly the injection would be more easy.

"We think that every syringe containing four ounces, in good condition, and not receiving any air, of which we can be assured if we try it filled under water, can be employed for the operation. Every intelligent instrument maker should be able to furnish such a syringe, with silver canule, at a cost of from six to eight dollars."

#### ON THE CHOLAGOGUE ACTION OF MERCURY.

—Whatever good effects may be obtained by using mercury, are still facts which no change of theory can alter. Modern researches only alter our interpretation of the facts, and not the facts themselves; and if mercury does not increase the amount of bile secreted by the liver, as has been hitherto supposed, but, in reality, diminishes the supply, it follows that we must look upon our results from a different point of view, and admit that our knowledge of the action of this drug, as of most others, is simply empirical.

The Edinburgh Committee appointed by the British Medical Association have published an elaborate report on the action of mercury as a cholagogue. The first part is purely historical, and gives an account of the difficulties which experimentalists have found in making accurate observations. The second part contains the researches of the Committee.

After several failures, biliary fistulae were established in full-grown healthy dogs, and every precaution was taken to prevent any shock from injury to the nerve or escape of bile or blood into the peritoneal cavity. Drs. Rutherford and Gamgee, to whom the success of the experiments seems to have been in a great measure due, devised an apparatus for collecting the bile secreted during twenty-four hours by a dog. In the fistulous opening was placed a Scott's canula, at the external end of which was attached a sponge, so as to collect the bile when it flowed through the canula. The sponge was placed in a tin box, and the latter was secured in its place by a gutta-percha shield, which fitted to the dog's body. A preliminary investigation was made to determine how far dogs are subject to the action of mercury. \* \* \* \*

The Committee concluded from these experiments that mercury has the same action on a dog that it has on man. This is an important fact, and it seems to be warranted by the report. Much larger quantities are, no doubt, required to produce effects in a dog similar to those which a small dose exerts on man, but then the difference is one of degree and not of kind. And, further, it is easy to find out the commencement of salivation or of spongy gums in a man, while in dogs you have to continue the administration of the drug until more decided effects are manifested.

The Committee made experiments on nine dogs with pilula hydrargyri, calomel, and corrosive sublimate. In each case they found that whether given in small, large, or gradually increasing doses, mercury did not increase the biliary secretion; so long as neither purgation nor impairment of health was produced, it did not even influence the secretion of bile, but as soon as the dogs began to suffer in health the quantity was diminished. For a full account of the observations made and the careful mode in which they were worked out we must refer our readers to the report itself. \* \* \* \*

We have by degrees lost that faith in mercury which it was the privilege of our forefathers to possess; it has been shown that inflammation and fever can be cured without it; some even have ascribed many of the dire effects of syphilis to its use. Still there remained a belief with many that it had some influence on the hepatic secretion. Even this last hope seems vanishing, and we may soon come to the conclusion that its only use in doses short of salivating is to purge; for this purpose a more harmless drug may perhaps be substituted.

There is one advantage which comes from the scientific work of the present day. In upsetting old theories it paves the way for new ones; it does this, too, by more accurately recording facts, and so making the new views more nearly approximate to truth. It is better to have no theories at all than to cherish erroneous ones; it is better still that men should doubt, if in the end they are led from scepticism to belief.—*Medical Times and Gazette.*

RANK OF MEDICAL OFFICERS IN THE NAVY. —Rank in the line has properties which increase in value and importance as it rises in the scale. It determines for the possessor the locality of his sleeping berth on board ship, as well as of his seat at the mess-table and council-board or court; his succession in the order of his going from or returning to the ship; his seat in the boat that conveys him to and from the shore with others of his grade; whether he may have the exclusive use of a boat; the ceremonial of respect enacted when he goes or comes; what personal service may be extended to him; the hour at which his candle shall be extinguished at night; the degree of his power and discretion as well as the limits of his command; and last but not least, rank guides the department in its assignment of line officers to duty. Then, too, there are personal immunities and exemptions which are customarily accorded to certain degrees of rank, increasing with its increase.

Rank is also the index of precedence on occasions of ceremony, and in some measure determines social relations in the naval community. \* \* \* \*

The design of the Navy Department and of Congress to confer on medical and other staff officers a substantial rank, having the properties of rank, has been defeated by the contumacy of the line, manifested by all kinds of illogical pretenses and pettifoggery subterfuges at different times. In corroboration of this assertion we refer to a correspondence between the late paymaster Sam Forrest and the late commodore Thos. ap Catesby Jones, at the time serving together on the coast of California. \* \* \* \*

By convening a board of line and staff officers to consider and report on all questions relative to rank in the navy, the Navy Department acknowledged that the staff officers are entitled to proper degrees of rank or position relatively to the line. As that board, which was adroitly constituted so as to secure a majority against the views entertained in common by the medical staff

as well as others, was dissolved without agreement upon any plan, it remains for the Naval Committees of Congress to collect all the reliable data understandingly, and from them frame a law which shall meet the requirements of the case, and be just to all. It is time that line officers should cease to dictate to the national legislature the measures it shall or shall not adopt to rule the navy. The line officers on duty in the Navy Department have grown to be, in an undefined manner, a sort of auxiliary naval committee of Congress; and because they are deservedly renowned for naval prowess, it seems to be admitted that their logic and knowledge, acquired only through the influence of the imperative mood of the quarter-deck, must be of a character to qualify them to be statesmen of the highest order.

For our professional brethren in the military service, whether of the army or navy, we respectfully demand just consideration at the hands of Congress. The seamen and soldiers of the military establishment, when sick or wounded in the service of the nation, are entitled to the attention of medical men of the highest qualifications the country affords. But such attention cannot be obtained for them as long as medical officers are exposed to such humiliation and contumely as have been put upon them recently in the navy, as the case of Dr. Charles L. Green abundantly shows.—*N. Y. Medical Record*, Dec. 15, 1869.

A correspondent of the above journal of the same date, writes as follows:—

As to rank and pay, the medical corps of the navy has much to complain of, and a just claim upon the profession for the exercise of all its influence in its behalf. By creating new grades, and authorizing increased compensation, Congress has advanced the line, until the relative standing of line and staff is so disgracefully disproportionate as to have excited comment and ridicule among foreign nations. There are medical officers in our navy to-day, who served faithfully as such during nearly all the war, still receiving the niggardly salaries of Passed Assistants—\$1,500 a year; while officers of the line, who ranked below them on original entry into the service, and who, in many cases, are a half score of years their juniors, now hold the rank of Lieutenant-Commanders, on salaries of \$2,343 per year. Surgeons who entered the service twenty years ago, educated at their own expense, who have seen ten and twelve years of sea service, are still receiving as their highest pay \$2,400, with no

chance of promotion above the rank of Captain; while line officers, received into the Naval Academy at the same time, boys from fourteen to eighteen, to be educated at government expense, are enjoying equal rank, and higher salaries by four hundred dollars per annum, with the prospect of the honors and emoluments of Commodores, and the different grades of Admiral in ripe years.

The reasons for this difference are to be found, I think, not in a lack of appreciation of the important services rendered by medical men, or in "that bitterness of hate which the line bears towards the staff;" but in the fact that the line of the navy constitutes a body of vast political influence. Every lad sent to the Naval Academy, is the son, nephew, or protégé of some Congressman, or of some man who has friends at court. His appointment is conferred as a public favor, and the same influence that gives him his position, avails to secure for him other privileges. With the medical corps it is not so. Political men and political favors are unknown to this department of the staff. Any young medical man, of the required age, however poor and obscure, may obtain permission to appear before the examining board. If the report is favorable, he receives a commission; if unfavorable, no influence will avail to give him one. Being, then, a far less numerous body than the line, and almost entirely destitute of political strength, the surgeons of the navy have been unable, thus far, though their efforts have been united and persistent, to get the attention of Congress long enough to demonstrate that they are poorer in rank and pay than any other corps of our military or naval service; poorer than the average of members of any county medical society in the country; so poor, that the government ought to be ashamed of the petty sum it is paying to men who have served the country faithfully and heroically through years of tedious blockade and storm, and pestilence and war.

From the *New York Medical Gazette* of the 11th we take the following reference to the action which the profession generally are called upon to take in this important matter:—

The College of Physicians and Surgeons of Philadelphia have issued a memorial in relation to medical rank in the Navy, which is to be sent to the various medical societies of Pennsylvania and other States, for the signatures of their officers. Action of this sort would probably have been taken

by the American Medical Association, at its recent session, had not that body been misled by the singularly fallacious statements of Dr. Pinkney. Since then the Navy Department has inflicted additional humiliations upon the medical staff, and we are truly glad to see that the crowning outrage in the case of Dr. Green has at last aroused the attention of the profession to a question which should have been settled years ago. We sincerely trust that every medical society throughout the country will make this grievance its own, and that an unanimous protest may force Congress to do simple justice to those members of our profession whose claim to honorable consideration is weakened only by their misfortune in having entered their country's service.

IMPORTANT IF TRUE!—That the Committee or Board on Naval Staff Rank, instead of making the report we copied a short time since, were unable to agree upon any plan, and adjourned *sine die*.

THREATENED DEATH FROM CHLOROFORM.—The *British Medical Journal*, of Sept. 11th, says:—Recently, at King's College Hospital, London, there was a very narrow escape from death by chloroform. The patient was a healthy man, aged 30, who was to undergo the operation of removal of a tumor from the front of the leg, by Mr. Henry Smith. As the inhalation proceeded, the patient began to struggle so violently that it required the assistance of several dressers to prevent him from throwing himself from the table. He, however, became insensible to pain; and Mr. Smith proceeded with the dissection, but was compelled to desist, in consequence of the violent movements of the patient. The chloroform was now entirely suspended; but, notwithstanding this, the man's face became suddenly livid, then changed to a deep purple color, respiration and pulse completely stopped, and death had apparently taken place. Mr. Smith at once thrust his finger to the top of the windpipe, got forward the tongue, and assistants commenced artificial respiration by the movements recommended by Dr. Silvester. The naked chest was vigorously flipped with a wet towel. For a brief period these measures seemed to produce no effect; but after a short time there was a slight improvement in the complexion, when the efforts were redoubled, and all were delighted to find the apparently dead man slowly respiring. In two or three minutes more, the man

had so far recovered that Mr. Smith was able to complete the operation, although, of course, no chloroform was exhibited. In some remarks after the operation, Mr. Smith referred to the narrow escape of the patient, and said it illustrated the danger which will occasionally attend chloroform, however carefully given, more especially in those cases where its exhibition is followed by a great amount of struggling. It was necessary to be particularly careful with it when this occurred; he had seen other narrow escapes exactly under the same circumstances.—*Dental Register*.

A MODE OF TREATING TETANUS.—Quite recently a patient who had become attacked by tetanus after compound comminuted fracture of the little, ring, and middle fingers, was treated by section of the chief nerves of the arm. Mr. Maunder cut across the median, radial, and ulnar nerves in the lower fourth of the upper arm instead of amputating.—*Medical Times and Gazette*.

#### DEATHS FROM CHLOROFORM.

*Fatty Heart and Death from Chloroform.*—At a meeting of the New York Pathological Society, Dr Lewis A. Sayre presented a specimen of abscess of the liver of the capacity of eight ounces, removed from a man who was supposed to have met his death in consequence of the administration of chloroform for an operation for hæmorrhoids. The patient was 37 years of age, and had been suffering from a variety of symptoms referable to intemperate habits. The physician to whom he appealed discovered the existence of piles and advised their removal. The anæsthetic was administered as a preliminary, but when everything was ready for the operation the patient suddenly died. The case became one for the coroner, and Dr. Finnell made the autopsy. The liver, in connection with the condition already described, was found to be far advanced in cirrhosis, the spleen was also the seat of abscesses of a multiple character, and the heart was exceedingly fatty, so much so that a few inhalations of the chloroform would in any event have been sufficient to have destroyed life.—*New York Medical Record*.

Are any of our readers aware of a case in which ether has caused death because the patient had a fatty heart? Are physicians in the habit of auscultating the heart for possible fatty degeneration before giving ether?

## Medical Miscellany.

DR. SCHÛPPE, recently reprieved by Gov. Geary, is described as being a dignified and refined looking gentleman, with a slight touch of the German cast of face; stands about five feet ten inches high, and his body is well proportioned. His face is full, and, contrary to the usual result of several months' confinement, is devoid of the prison pallor. Judging by the bloom on his cheeks, one is led to believe that he has just been incarcerated. His hair and mustache are very dark, and both are kept in a nicely trimmed condition; his eye is clear and full of expression, and while in conversation speaks almost as plainly as the words which roll from his mouth; he is short-sighted, and the only objectionable feature in his physiognomy is that he is occasionally given to squinting. He has a large, muscular frame, which is to be attributed to the athletic exercises which he cultivated in early years. He is what is termed a handsome-looking man, and is one who would be likely to attract attention. Schœppe asserts that justice has not been accorded him; that prejudice was the cause of his arrest and conviction. He hopes to obtain a new trial and an acquittal. —*Boston Post.*

HE [Dr. Beebe] believed physicians should draw a wide contrast between homœopathic and allopathic surgery. There is a vast difference in the result. The mortality is very much less, and we can undertake operations with hopes of success, that they dare not undertake. So sure is he of success, with our remedies to aid him, that he feels able to undertake almost any operation. Believed that before another twelvemonth he would extirpate a lung. Has a case now; were it the right lung that was diseased instead of the left, he would excise it. —*Report Illinois Homœopathic Medical Association, Chicago, Nov. 9, 1869.*

**SNAKE BITE CURED BY THE APPLICATION OF A COAL OF FIRE.**—Dr. Perkins writes to the *Galveston Medical Journal*:— \* \* \* A young man, 18 years of age, was bitten by a very large rattlesnake (five feet long) on the arm, above the elbow. A coal of fire was applied a short time after he was bitten. I saw him two hours after the accident, when he appeared very much prostrated and was vomiting every few minutes—pulse very small and frequent, complaining constantly of the burn, which was pretty severe. I gave him freely of diluted alcohol. His recovery was rapid and the swelling in the arm slight.

The question now is, did the fire do any good? I think it did; not only by destroying the virus, to a considerable extent, but also by producing a local incapacity in the veins and absorbent vessels to perform their functions. I think, in all probability, he would have died before the alcohol was given, if the fire had not been applied. —*Medical and Surgical Reporter.*

IN the Vienna Lying-in Hospital, for the year 1867, there were 8,163 confinements in the different departments. The total mortality among the women was 21, or 1-1 per cent. —*Medical Record.*

**PUBLISHERS' NOTICE.**—In conformity with the plan suggested in the JOURNAL some months since, the 4th volume closes with the present number—at the end of the calendar year instead of at the close of January as formerly. The number of pages lost by this omission of a month's time has been more than made up during the year by frequent additional ones to the weekly issues. In making up the numbers for binding, it will be necessary to notice that some of them are issued as double numbers, which was done that the full number of 26 might show that the volume is completed. The Title-page and Index to Vol. IV. will be sent to subscribers with the next issue—No. 1, Vol. V.

As usual at this season, subscribers, who have not already paid, will receive their bills in one of the numbers of the JOURNAL. A receipt for remittances by mail is always intended to be sent in the next number after receiving them; should such receipt not reach any subscriber at the proper time after his remittance, notice should be given to the publishers.

**ERRATUM.**—MRS. PARTINGTON says Ike tells her there is a misprint on page 382, second column, line first, of our last issue. Instead of "children are very perceptible to the influence of opium," it should be *susceptible*, &c.

**TO CORRESPONDENTS.**—Communications accepted:—Opium Eating cured by Belladonna Poisoning.—Underscribed Vertebral Processes.

**BOOKS AND PAMPHLETS RECEIVED.**—Nocturnal Emissions and Incontinence of Urine. By Frederick G. Snellington, M.D., of New York. Re-printed from the New York Medical Gazette. Pp. 18.—Last Illness of Dr. Alden March. A Criticism on the Management of his Case. By Charles A. Robinson, A.M., M.D., Albany. Pp. 28.—Lecture Introductory to the Course on Materia Medica and Hygiene, delivered before the Medical Class of the University of Buffalo, Nov. 28, 1869. By Charles A. Lee, M.D.

### Deaths in eighteen Cities and Towns of Massachusetts for the week ending Dec. 25, 1869.

Cities and towns.	Number of deaths in each place.	PREVALENT DISEASES			
		Consumption.	Influenza.	Diph. & Croup.	Scarlet Fever.
Boston . . .	106	19	8	1	4
Charlestown .	8	0	1	0	1
Worcester . .	18	3	1	1	0
Lowell . . .	16	1	2	2	1
Milford . . .	4	1	1	0	0
Chelsea . . .	7	2	0	3	0
Cambridge .	9	0	1	1	1
Salem . . .	9	4	2	1	0
Lawrence . .	6	0	0	1	0
New Bedford	11	3	0	0	0
Springfield .	7	2	2	1	0
Lynn . . .	3	2	0	0	0
Pittsfield . .	4	0	0	0	0
Fitchburg . .	5	1	1	0	1
Taunton . .	6	1	0	0	0
Newburyport	3	0	0	0	0
Fall River .	12	2	3	0	0
Haverhill . .	5	1	1	0	0
	239	42	23	11	8

GEORGE DERRY, M.D.,  
Secretary of State Board of Health.

**DEATHS IN BOSTON** for the week ending December 25, 1869. Males, 49—Females, 57.—Abscess, 1—accident, 2—apoplexy, 3—congestion of the brain, 3—disease of the brain, 3—bronchitis, 3—cancer, 5—consumption, 13—convulsions, 2—cyanosis, 2—debility, 6—diarrhoea, 3—diphtheria, 1—dropsy, 2—dropsy of the brain, 2—epilepsy, 1—scarlet fever, 4—typhoid fever, 2—gangrene, 1—disease of the heart, 6—disease of the hip, 1—intemperance, 1—jaundice, 1—disease of the kidneys, 2—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 8—marasmus, 2—old age, 3—paralysis, 2—puerperal disease, 1—unknown, 9.

Under 5 years of age, 37—between 5 and 20 years, 6—between 20 and 40 years, 23—between 40 and 60 years, 17—above 60 years, 22. Born in the United States, 73—Ireland, 24—other places, 9.











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